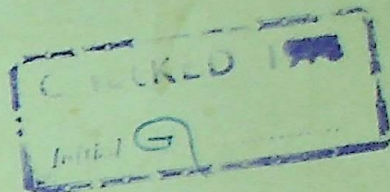
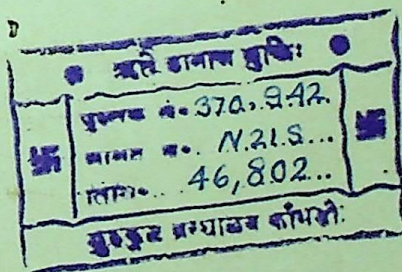
THE SCHOOLS AT WORK

BEING A PICTORIAL SURVEY OF NATIONAL EDUCATION IN ENGLAND AND WALES

FOREWORD BY

THE RT. HON. VISCOUNT HALIFAX

PRESIDENT OF THE BOARD OF EDUCATION

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FOREWORD

ALL who have had any concern with the administration of our educational system know how frequently the question is asked—"What are the schools doing for the children?" And by "the schools" in this question is meant the schools which are maintained or aided by public funds. This book, "The Schools at Work," is an attempt to give an answer to this question in the form of a description by example, mainly in pictures, of the activities of these schools.

It would obviously be impossible within the limits of a volume of reasonable size to depict with really satisfying adequacy the immense variety of the work which is done in the many thousands of schools, Elementary, Secondary and Technical, throughout the country, but the samples which have been selected for presentation in this book are true to type and represent very fairly the purpose which actuates the schools and the methods which that purpose employs. Not the least striking feature of this work is the marked contrast revealed in the conditions in the schools fifty years ago as compared with those of to-day. The illustrations will bring home, possibly better than any merely verbal description could do, especially to persons not already familiar with the changes in method and outlook which have been steadily taking place in the schools, the immense advance which has been made during the last half century in the general conditions under which the schools are conducted, as well as in the attention given to the health and physical development of the children and the widened range of activities now made available to them.

The publication of this volume should serve a very useful purpose, and I hope that it will secure a wide circulation, and that it may be as successful in achieving its object as the initiative and labour of its producers deserve.

HALIFAX.

THE SCHOOLS: THE NATION'S SOCIAL CENTRES

By SIR HENRY RICHARDS, C.B., Late Senior Chief Inspector, Board of Education

IN looking through this striking collection of photographs, we get in the first place, a vivid picture of the work of the school in all its extensions and variety.

In the second place, we realise that this work is not the result of some machine manipulated by an all-powerful authority, but of a great co-operative effort in which all concerned take part, the central authority, the local authorities, voluntary bodies, and above all the teachers, who in their turn stand out not merely as members of a profession carrying out a duty, but rather as individuals intensely interested in the children confided to their care.

There is, of course, a machine, but it is strictly subservient to the personal element, and the buildings and equipment never overshadow the human and humane ends for which they are designed.

And yet we have a great social and cultural structure created by the State and supported by public money.

Its growth is, indeed, a most characteristic episode in our island story.

The beginnings are small and imperceptible additions made from time to time to meet particular needs go almost unheeded until one day the nation suddenly realises that an imposing edifice has sprung up in its midst, an edifice so great that it covers the training of youth from the very earliest years right up to the university stage.

In a fit of absence of mind we appear to have lost the complete individualism of the eighteenth century.

Yet financial dependence on the State has left scarcely touched the instinctive suspicion of its influence.

The freedom of local authorities and of governing bodies, and, above all, of the teachers, fill foreign visitors with amazement.

If, in fact, the schools suffer from any lack of freedom—if there is any truth in the charge of "mass production"—it is not the State, but the examination system which should be held responsible.

As a matter of fact, the charge is not a true one. It would be quite easy to maintain that there is too little system, too great a confusion of aims and method, and too great a devotion to the personal rather than to the mental training of the pupils. For let it be acknowledged that our freedom is won at a price.

The public system of education does truly cover the whole life of the child and adolescent, the steps of the educational ladder are regulated and accessible, the opportunities not only for talent but temperament are extensive and organised, but there is nevertheless much avoidable waste and overlapping, sins of omission and commission, which an ordered and simplified approach to the problem might well have avoided. There is a consequent absence of steadiness in policy and balance in curriculum, and we have the appearance often of simply muddling through. The fact is, that quite apart from our impatience of clear thought and logical planning, we lack what the French, for instance, have in so marked a degree—a tradition at once intellectual and democratic.

We frankly distrust the intellect, and the ordinary citizen seeks higher education for his children largely as a means of social advancement. The State has at no time been supported by an enlightened public opinion, which has insisted on coherent and orderly growth; the various branches of education, elementary, secondary, and technical, have developed in independence, and their lack of relationship has meant confusion and waste.

Our common sense and our genius for adaptation have alone saved the situation. In spite of all we have built better than we intended. Our elementary schools are, in the opinion of those best fitted to judge, unequalled as training grounds for good citizens.

The organisation of our secondary schools, side by side with the ancient public and grammar schools, has been one of great national achievements in the years before the War. Since the War, we have embarked on a reconstitution of elementary education which will in time give to every type of child his long deferred opportunity.

In the new senior schools, the nation has an instrument so strong and so pliant that no child, whether in town or country, need lack an education adapted to his temperament and ability. Wise administration and friendly co-operation might go far to produce this result throughout the country, and at no distant date.

At long last the technical schools seem likely to enter into their heritage, and to their work the leaders of Industry and Commerce are paying increased attention and rendering valuable support.

But more important than all, the whole educational system is being infused with a spirit of unity and understanding, and schools of all types are sharing in those wider conceptions of what constitutes national education which are tending to eliminate the old exclusiveness and isolation.

Among these conceptions may be mentioned the insistance on physical well being, the recognition of the importance of music and art, and the necessity of a close relation of the school work with the life outside it.

We have in truth reasons for hope. The machine is cumbrous, but it works. Material progress is evidenced on every page in this book.

And yet in this panorama of school life and work it is not the buildings or equipment that impress the observer, but the feeling lying behind it all that we are dealing with souls and bodies in the care of a human and humane profession, concerned not with passing codes and schemes, but with the eternal matters of the mind and spirit.

THE ELEMENTARY SCHOOLS

By THE RT. HON. H. A. L. FISHER, F.R.S., Formerly President of the Board of Education

"IF we could have an Education Society on right lines," said Jesse Collings in 1867, "the very stones of the street would join us." Those of us who have been reading Mr. Garvin's brilliant life of Joseph Chamberlain, will recall his picture of the condition of the children in Birmingham when that great reforming statesman took up the cause of education "how nearly half the children of the working class everywhere ran wild; ragged, barefoot, and begrimed; in a state of decivilised barbarism sadder than savagery," and how Chamberlain and his gallant band of Birmingham reformers raised a cry for education which resounded through the country and roused it to a sense of responsibility for national education. The general principles laid down by Chamberlain in 1867 may seem commonplace now. They were daring then. They were as follows :—

1. That it is as much the duty of the state to see that children are educated, as to see that they are fed.
2. That the right of education ought not to be restricted by any religious tests.
3. That this right ought not to depend on the caprice or charity or the will of parents.

But even more startling to that generation was his sense of the importance of dignified school building. "When we are dealing," he observed once, "with what I believe to be one of the highest functions ever imposed upon a community, we are bound here also to see that buildings which are the outward and visible sign of the work going on within shall not be in evident discord with the nobility of the duty which we perform." Joseph Chamberlain did not succeed in effecting the whole of his purpose. He failed to persuade the country to adopt a system of universal undenominational education. Two great results, however, he succeeded in securing, the abolition of school fees and the enforcement of school attendance.

Sixty Years of Progress

More than sixty years divide us from the great civic renaissance which under Chamberlain's leadership made Birmingham a pioneer in social progress. School building has improved; in status and qualifications, the teachers of to-day are far in advance of that hastily recruited, hard-worked, and shamefully remunerated army who bore the burden of the classrooms in the early days of universal elementary education. Illiteracy has practically been stamped out. The work of the school medical service and the restrictions of the hours of industrial toil, permitted to school-going children, have ensured physical conditions under which it is possible for children, even in the poorest and most over-crowded districts, to profit from the teaching which they receive. And there are certain features of our English system which particularly strike the foreign observer as good and worthy of imitation, notable the excellence of our infant departments, the physical training, the wholesome and unaffected social relations which tend in this country to establish themselves between the teachers and their children, and the provision which is made in so many schools for various forms of practical work. Not all teachers are competent, not all schools are good, not all local authorities are progressive and not all children are capable of learning. There are few generalisations about elementary schools which are true over all the field. I give it, however, as my confident opinion that after these sixty years, the best English elementary school is equal to any of its type to be found in other countries. A friend in whose great knowledge of comparative education I have the fullest confidence, once gave me his considered opinion that our really good elementary schools are the best in the world.

Nobody will, I hope, suggest that I am insensitive to the immense educational improvements which have still to be accomplished before our system is fully worthy of a great civilised nation. It is, however, worth while at a time when the nation is invited to consider whether it is getting full value for the money spent on education, to point out that in the last sixty years the progress has been steady, unmistakable, and in some respects brilliant. It may perhaps serve as some index of the greatness of the change which has been effected, that whereas sixty years ago the parents were very generally bitterly opposed to the school (I have known a teacher who even required police protection against them) they are now almost without exception behind it.

Wider Opportunities for All

One change as great as, and perhaps even greater than, any which has yet been noticed has not yet had time to develop its full significance. Sixty years ago our educational reformers felt that, if they could only secure a measure of elementary education for all the children of the country—an immense and formidable task—they would have done their work. The elementary school was the end of their efforts. It was conceived as a unit sufficient in itself. Now we think of it otherwise, as part of a general system extending from the nursery school to the university. The old rigidity has been made flexible, the old isolation has been broken down. It is now a common thing for children originally trained in our elementary schools to go forward to secondary schools and thence to the universities.

In the last analysis the teaching depends on the teacher. If in Chamberlain's words he discharges "one of the highest functions imposed upon a community," then we cannot be too careful in the measures which we take to ensure his proficiency and to safeguard his self-respect. The work is exacting and responsible. The reward should be sufficient and secure. To throw our educators into a state of uncertainty or discontent is to sap the pillars of public order.

It is not, however, on such a note that I would end, but rather on the general zeal and interest which now prevails in our elementary classrooms. By common consent the schools have in that respect made a great advance. An interfusion in the teaching bodies of a country of even a small number of men and women who have come to regard their function not as a drudgery, but as an art, makes a difference to the whole level. Such teachers are now more numerous than before and their influence makes itself felt.

THE SECONDARY SCHOOLS

By DR. CYRIL NORWOOD, Headmaster, Harrow School

STATISTICS are out of place in what must be a short article, and it must be sufficient to say that the twentieth century has seen a development hitherto unparalleled in the history of English education. Schools which were old and moribund have been revivified, and in effect founded anew: new schools have been erected in large numbers. A boy or girl of real ability can hardly fail to obtain, at little or no cost, a good secondary education, and an opportunity of going on to the University. This great advance is in the main due to the Local Authorities of the country, working through skilled and now experienced Directors of Education, and the most valuable result of their labours is this, that, whereas at the end of the nineteenth century the country had no particular belief in the value of education, now the voices of those who decry the Secondary School are few and far between.

A Common Ideal

Great variety of type and history is to be found among the schools of the country, and that is in itself a good thing. Some are old Grammar Schools dating back to the Reformation, some are brand-new municipal schools: similar differences are to be detected among the boarding-schools, and those known by the undefinable term, "Public." But it has not been sufficiently realised that there is already a common education which is being given in them all, whatever may be the difference in supposed social status and history. There may be in the older schools with a long University connection behind them, a greater stress on Latin; there may be in the newer a greater stress on Science. But they are all alike working for the School and the Higher Certificate, and these two examinations represent a thought-out conception of Secondary Education which has been dominant and almost universally accepted for a generation. Now there are more than half-a-million boys and girls in these schools, and this common curriculum which they follow is a strong unifying influence which cannot be without its effect upon the citizens of to-morrow.

Identity or similarity of curriculum may be a deadening force, but there is much more than this at work in the schools. There is something much more potent coming into existence, and that is identity of ideals. It is becoming increasingly realised that the Secondary School is first of all a training-ground for citizenship, and a preparation for life, and only secondarily, a course of study leading to an examination. " Manners makyth man " may be the proud motto of one of our oldest and greatest schools, but its truth is understood, and its importance recognised, in many of our newest. If this country is ever to be a united nation, the living bonds of its union will be created in the secondary schools, and, as the twentieth century wears on, this truth is being more and more consciously recognised by those who teach. Schoolmasters and schoolmistresses rightly believe themselves to be a single great profession, made great by the supreme value and identity of its task.

A nation becomes great when it has a common ideal and a common discipline, and each member can feel that he is working in his place to serve the common end. There are some nations of the world to-day where strong leaders have realised this, and are seeking to produce the result by the exercise of relentless force. The Teachers of this country have it in their power, if they once realise the sacredness of their common task, to create a community which will be united because it wills to be united and which will be infinitely more enduring because it has chosen its ideals in freedom. They will need to implant a sense of the value of disciplined effort, an instinct for co-operation, moral integrity, sound physique, and respect for real knowledge.

For the proper performance of so great a task they must have all the freedom that can fairly be allowed to them, freedom for experiment, freedom to express individuality. That which gives life to a school is the sense of common spiritual and intellectual endeavour, of teachers and taught willing and co-operating in a common end and seeking it by unity of practice. That which deadens a School is the sense that teachers and taught are following the monotonous course of an annual routine which will be judged by purely external standards, and in which any expression of individuality is unsafe.

There must be fuller intercourse among teachers and schools than exists at present. The days have already gone by when one secondary school looked at another, as a retail shop-keeper might look at a rival competing for custom in the same street. But jealous aloofness is still not unknown. Schools of all types have a good deal to teach one another, and the lines that divide the old from the new, the boarding from the day, are still too harsh. There is a tradition of character-training on the one side, an efficiency of method and organisation on the other, which at least make it possible that experience can be shared with advantage to all the sharers.

A Task for the Future

Finally, though the subject can only be touched on, there must be full recognition of the fact that the task of the secondary schools is wider than it has been thought to be. They have been hitherto thought of as the avenue to the Universities, and to the professions, and those pupils who have not shaped well in these directions have been written down as failures. But it is obvious that the Universities and the professions cannot properly absorb all who now crowd into them, and the most practical and statesmanlike course is to rule that the School Certificate shall no longer qualify a candidate for Matriculation. That will set the schools free to devote themselves to their proper task, which is, as has been said, to provide for all their pupils a training-ground for citizenship and a preparation for life. The subjects of the curriculum need to be re-thought and re-valued —the present examination fetters must be broken. If this can be done with wisdom and foresight, the secondary schools as a single service will turn the united and disciplined free nation of which men dream into the reality for which the world is waiting in sore need.

THE TECHNICAL SCHOOLS

By THE RT. HON. LORD EUSTACE PERCY, M.P., Formerly President of the Board of Education

FIRST, a paradox. Technical Schools are a particular kind of school; but technical education is not a particular kind of education. The problem of technical education is how best to provide the nation with artisans skilled in the use of modern machinery, salesmen fluent in commercial Spanish or Russian, designers and craftsmen for the artistic industries, chemists and physicists for industrial research laboratories, and (perhaps most important of all) works managers with sufficient scientific training to understand and apply the results of research. But this problem is not confined to any one set of schools or colleges; it is simply one aspect of the work of all educational institutions, elementary, secondary, technical, and university. The problem of the technical school, on the other hand, as it exists in this country, is how best to give a continued education to young men and women who are already at work in the world and who wish to train themselves more thoroughly for their chosen vocation, or to prepare themselves for another vocation which will give fuller scope to their powers, or simply to use their leisure in some intellectual occupation. Consequently, the work of the technical school or college extends all the way from elementary education in the evening continuation class, for boys and girls who have just left school, to adult education in many art schools and evening institutes where about 375,000 of the students are over twenty-one years of age.

Some Facts and Figures

Let us analyse this miscellaneous work a little further. First, we have a class of school which falls rather outside the above definition: the full-time Junior Technical and Commercial (and Junior Housewifery) Schools and the Junior Art Departments, which are really secondary schools, with more or less vocational bias, containing about 23,000 students between the ages of 12 and 16. There are also some full-time Senior Courses and Art Schools containing about 14,000 students between 14 and 22 years of age. Apart from these, there are rather over one million students attending part-time courses. Nine-tenths of them are evening students and, of these 900,000 odd, about 250,000 are between 13 and 16 years of age, 180,000 between 16 and 18, 150,000 between 18 and 21, and the rest over 21. Of the (in round numbers) 100,000 Evening Classes attended by these students, about 35 per cent. are devoted to definitely vocational subjects, industrial, commercial or professional, 15 per cent. to English or foreign languages, 15 per cent. to mathematics, 15 per cent. to domestic subjects, and 5 per cent. to natural science, while the rest range from the social sciences and philosophy to art, music and physical training.

The Anomaly of the Technical School

It will easily be guessed from this rough survey that the chief difficulty of the English Technical Colleges and Schools is to present to the public any clearly focused picture of what they are doing or can do. They have neither the university standing of the great Continental polytechnic High Schools nor are they specialised schools for a particular industry like, for instance, the German *Fachschule*. The larger Commercial and Art Schools and Colleges are, indeed, generally distinct institutions, as are also the Day Continuation and Junior Technical Schools; while much of the junior evening continuation school work is also separately organised. Further, a few institutions in areas dominated by a single industry are highly specialised in that industry, for instance, the School of Mines at Wigan. But, even after making these qualifications, it remains true that the English Technical School is not so much an institution of technical education as a Local College, endeavouring to serve all the varied educational needs of a city or industrial district. Industrial students, who in other countries would be attending a textile school or an engineering school, attend in England a textile class or an engineering class in this Local College. Yet this concentration of miscellaneous part-time work under one roof, sometimes with a certain number of full-time courses, rarely achieves any real co-ordination of connected studies, such as one may find here and there in other countries, where perhaps all branches of the building industry, from architecture to furnishing, may be brought together in one place of learning. Technical Schools are generally too small for such co-ordination, and their attempt to supply all the demands of their locality may result rather in an over-multiplication of classes of a not very high standard than in any approximation to the ideal of a polytechnic.

A Two-fold Problem

This is not written by way of criticism, for the writer believes strongly that the best hope for English technical and adult education lies in the development of the distinctively English idea of the Local College, rather than in any imitation of foreign models. The purpose of these remarks is, on the contrary, to indicate how heavy is the burden of organisation which the working out of this idea throws upon the principals of our Technical Schools and Colleges, on the local authorities responsible for them, and on all their teaching staff. The problem confronting them is two-fold: how to provide, under one roof, highly advanced teaching in applied science and technology, together with general education of various grades in a whole range of subjects; and how best to reconcile the local character of these institutions with a proper concentration of advanced work in special subjects on a regional basis. The solution of this two-fold problem is, moreover, enormously complicated by the fact that nine-tenths of all this work has to be carried on in the evenings, for the growth of day classes is disappointingly slow, even in industries which require a high standard of training in their apprentices. It is a tribute to the educational and also to the industrial genius of our race, with its carelessness about forms so long as it can get the substance, that this problem is being steadily solved and that these amorphous institutions are not only winning an ever-increasing reputation as centres of learning and training, but are also, each of them, developing that corporate life and spirit which is the distinguishing characteristic of the English School and University.

THE SCHOOL MEDICAL SERVICE

By SIR FREDERIC MENZIES, K.B.E., Chief Medical Officer, London County Council

THE period during which elementary education has been compulsory in this country can be divided into two parts which are practically equal in time. During the first half of the period the schools were carried on without any attention being paid to the physical condition of the children; during the second half the teachers have had the assistance, ever growing in importance, of the doctors, dentists and nurses who form the school medical service.

In that first thirty years in which no health service in connection with the schools existed, the teachers were obliged to do their best (and a good best it was, although forlorn) to teach children who, as contemporary evidence proves, were often underfed, defective, mentally and physically, and infested with parasitic disease. For these evils there existed no remedy.

It was not until the dawn of the present century that for the first time in some of the greater areas, doctors and nurses became associated with the local education authorities, and the conviction began to take root that the education of minds and the physical development of bodies were equally important and interdependent.

The Growth of the Medical Service

In 1902 the London School Board appointed a Medical Sub-Committee and gathered up uncoordinated medical beginnings into a medical department, and during the next few years a number of assistant medical officers and nurses were added to the staff and regular medical inspections of the children and of the schools began to take place.

In 1906 the Education (Provision of Meals) Act was placed on the Statute Book, which gave the education authorities power to feed children who were unable to learn through hunger or semi-starvation.

In 1907 the Education (Administrative Provision) Act was passed, which made the periodical inspection of children in schools a compulsory duty of education authorities and also gave the latter the power to provide medical treatment, and in 1908 the Children's Act gave power to compel parents to take advantage of the facilities provided by the authorities for treatment and power to deal with parasitic conditions.

A medical department was created at the Board of Education under the direction of Sir George Newman, and it became compulsory for every local authority to appoint a school medical officer.

The way was now clear for advance. Before long, school treatment centres or " clinics" were established in an increasing number of local areas and the mountain of physical defect and neglect began at last to be removed.

At the present time, the school doctors working under the direction of the school medical officer, and in conjunction with all the other health services of the district, examine on an average every school child once a year. Healthy children, however, are seen possibly not more than three times in their school life, while ailing and defective children are kept under constant observation. Teachers can readily obtain advice upon any children who give them anxiety either on mental or physical grounds. Specialist doctors are employed also who advise on children referred to them for deafness, defective vision, and indeed any kind of physical or mental defect.

School nurses are employed in every area, and the schools are visited by a school dentist who sees the children in many areas once a year throughout school life. He also treats those with dental caries at the school treatment centre or clinic where there is a dental department.

In many areas voluntary care committees have been formed whose duty it is to aid the medical and teaching personnel in the physical care of the child, and great enthusiasm is shown by the voluntary workers in this great and worthy task.

The teachers give tuition to the children in hygiene, carry out physical education, take the greatest interest in the work of improving the physique of the children and have important duties in connection with the orderly work of medical care. Without the sustained interest and co-operation of the teachers the work flags and becomes lifeless. It is under their vigilant observation that the children constantly remain, and they chiefly originate special medical inspections which are perhaps the most important medical part of the whole system.

Such is a brief and inadequate bird's-eye view of the school medical service as it exists to-day in this country. It is certainly the best organised and most complete service of its kind in the world. What does it cost? Not an alarming sum. In Sir George Newman's annual report for 1931 the cost of the school medical service for the whole country is given as £1,882,305—this for an average attendance of about five million children, or 8s. per child per annum. What are its results? Formerly teachers struggled in despair with children suffering from all imaginable evils for which nothing could be done. It was not possible to feed the hungry and ill-nourished; to teach the semi-blind and semi-deaf, and parasitic disease was rife to such an extent that teachers rarely left school at the end of the day without themselves conveying back to their homes parasites which had strayed to them from their charges. Children attended school with untreated sores and eyes and ears streaming with septic disease.

A Summary of Achievement

This is all now changed! Whereas body vermin formerly affected large numbers of the children, they are now, as the result of the school nurses' ministrations, almost impossible to find. The gain in self-respect and material comfort which this alone has brought cannot be estimated. The hungry are fed, the sick are healed, and defects of the senses of sight and hearing, which are the chief avenues of approach to the child's mind, are detected at an early stage and corrected.

Although growing still and not yet complete, can there be any doubts that the school medical service, which forms a part equally of the educational and health services, is essential to both and is a potent means of improving and safeguarding the health of the workers of the country?

FIFTY YEARS AGO

THE WHOLE SCHOOL IN ONE ROOM

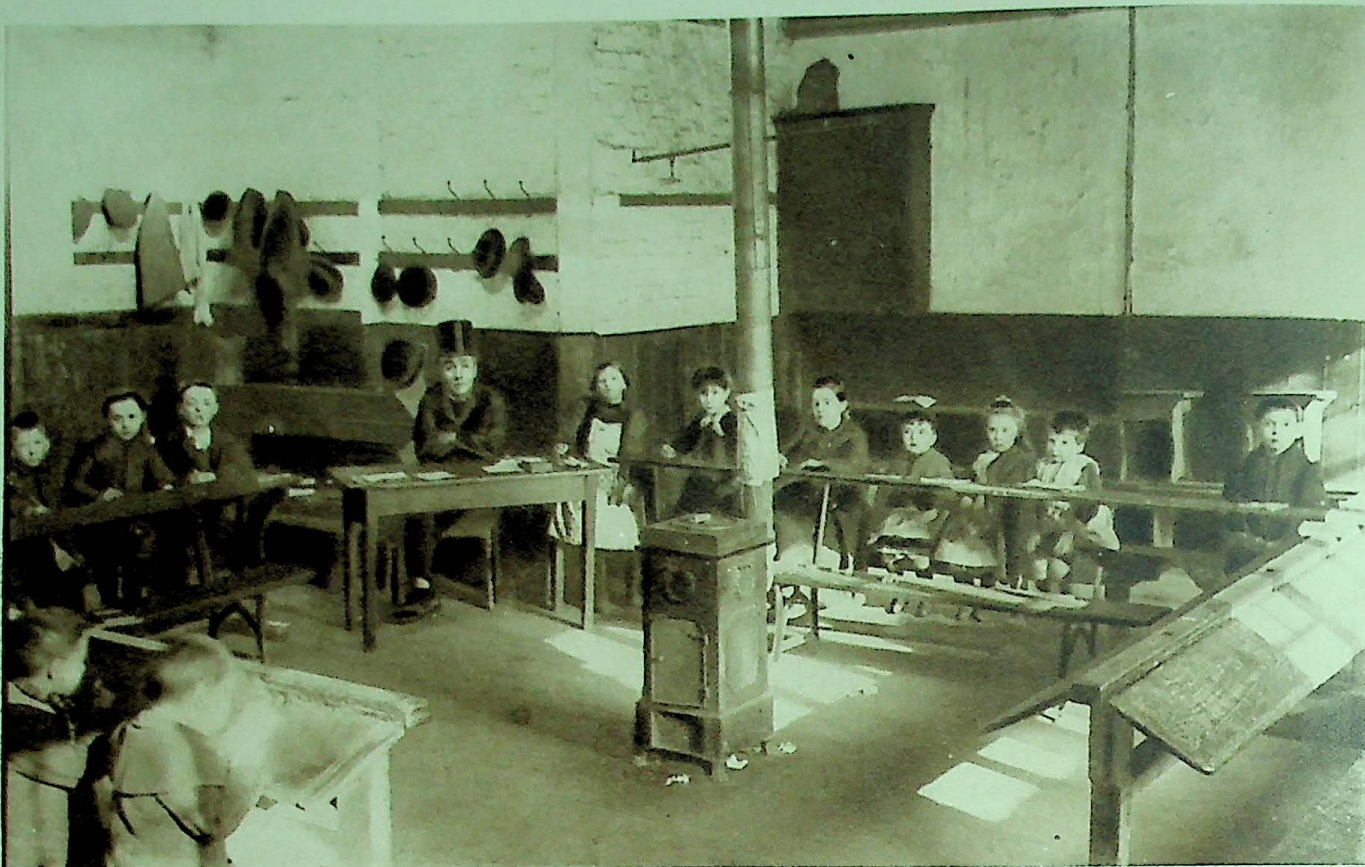
THIS picture shows a school of about fifty years ago, when it was customary for the whole school to be housed in one large room in which all the classes worked. The children are packed like sardines in long desks on three galleries. Imagine the conditions of teaching—teachers and pupils forced to talk one against the other, the incessant hubbub, with no space for free movements or exercise, the exhausting wear and tear for the whole school.

Contrast the pictures on the opposite page—of a school of to-day: every class in its own room opening into a covered verandah leading to the playground; central hall; rooms equipped to practise the Arts and Crafts of daily life; above all, the children, well conditioned, happy and eager for work. This is the type of building to which all new schools will in the future approximate—bringing with them effectiveness of organisation and economy of effort.

THE CONTRAST TO-DAY

A MODERN SCHOOL AND PLAYGROUND.

A MODERN CLASSROOM.

A 19TH CENTURY SCHOOL AND—

THEN : Pupils of all ages, in the one and only room, which is also a cloakroom, seated at long, old-fashioned desks, few books and no pictures, and the master as sole teacher, dignified by his silk hat.

—THE SCHOOL ON THE SAME SITE TO-DAY

NOW : A modern classroom in the same school to-day. Contrast this pleasant room—pictures on the walls, the teacher at the black-board, the happy faces of the children—with that above. Is there any doubt that such progress is worth while?

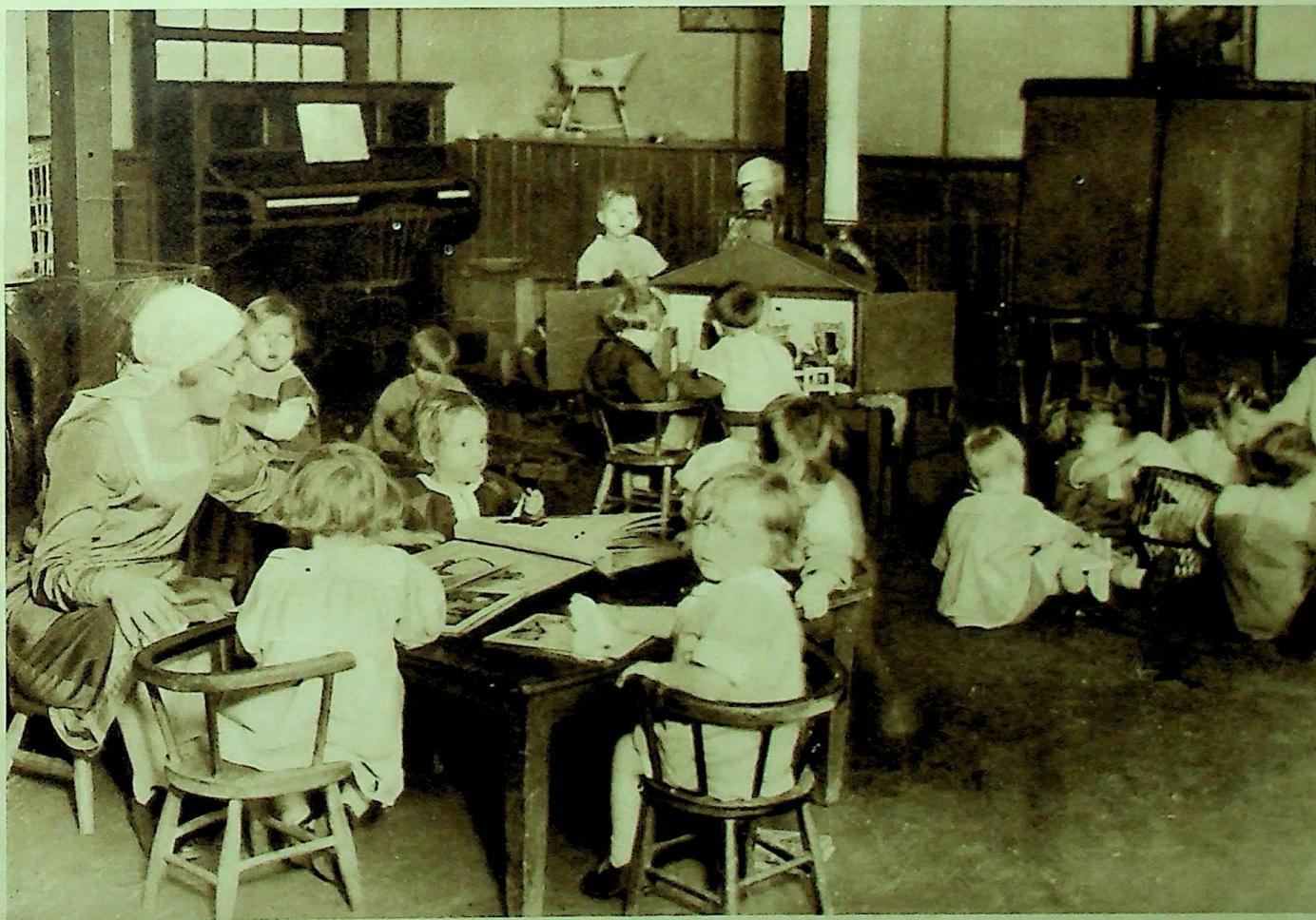
NURSERY SCHOOLS AND CLASSES—
—WHERE BABIES LEARN TO WORK THROUGH PLAY

EDUCATION is compulsory for all children between the ages of five and fourteen, although, unlike several foreign countries, parents are not forced to send their children to State schools.

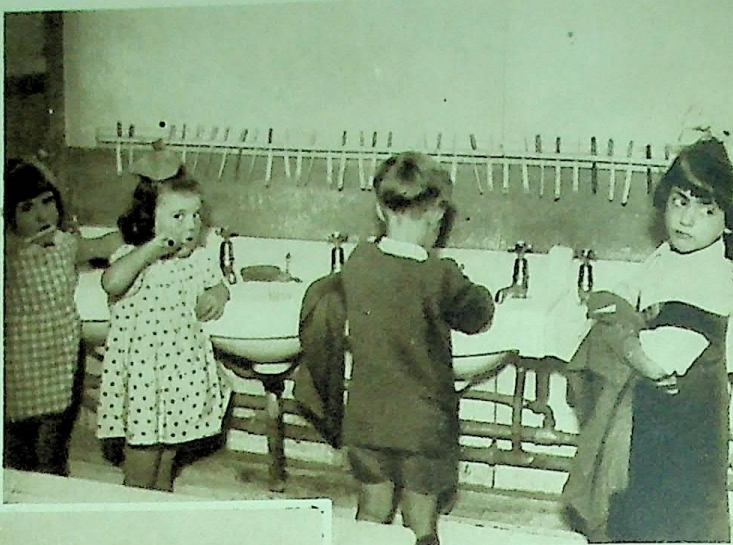
Public elementary education consists normally of three stages, namely, the Infant School, for ages 5 to 7; the Junior School, for ages 7 to 11; and the Senior School, for ages 11 to 14. Sometimes all these "Schools" are taught in one building, under one Head Teacher; sometimes each "School" has its own building and its own Head Teacher. Each has its own time table of lessons and its own curriculum suited to the particular age-group.

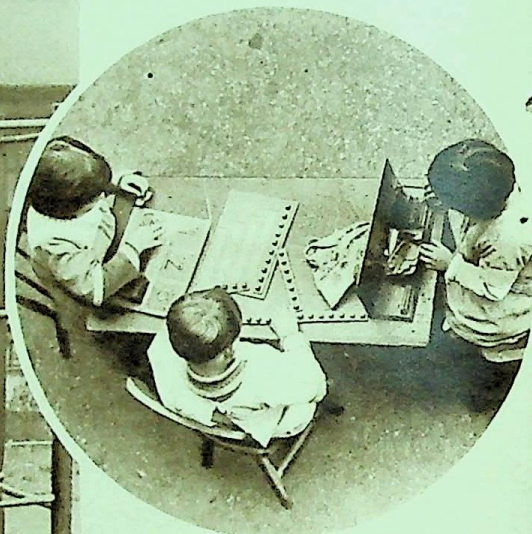
In addition to the above, however, schools of a "permissive" character, called Nursery Schools, exist in various parts of the country. The Nursery School takes babies under five years of age, from street and slum, into a healthy environment. The School is usually an open-air shelter, with a garden attached. The establishment of these schools was due to the extensive infant mortality (revealed by reports of Medical Officers of Health), and to the degree of preventible disease, much of which was the result of parental ignorance and neglect in early childhood.

The actual number of these schools is as yet small. Nevertheless, they have performed an invaluable function in setting a standard for the training and treatment of very young children. To this influence is due the growth of nursery classes attached to the Infants' Schools.

AT "WORK" OUT OF DOORS.

AT "WORK" INDOORS.

A DAY IN A NURSERY SCHOOL

BABIES FROM A POOR DISTRICT BEING BATHED.

HERE WE SEE THEM ENGAGED IN TOOTH-BRUSH DRILL.

PLAYING IN A SAND PIT.

FIRST LESSONS IN ARITHMETIC.

APPARATUS FOR PHYSICAL EXERCISES.

PREPARING FOR THEIR AFTERNOON SLEEP—EACH CHILD HAVING ITS OWN BED.

THE MIDDAY MEAL BEING SERVED BY THE BABIES THEMSELVES.

THE INFANT SCHOOL

FOR AGES 5 TO 7

THE FIRST COMPULSORY STAGE

A NINETEENTH-CENTURY INFANT SCHOOL : notice the poor physique and miserable appearance of the children, and the uncomfortable seating accommodation.

THE first compulsory stage of Elementary Education is the Infant School for the 5 to 7 plus age-group. Here the children learn the first great lessons of life—"Manners Makyth Man," Health and Cleanliness, and the "elements" of education, the three R's. They learn *through* "Play" and "Make-Believe" and "Acting" (which are serious "work" for little children), and on these happy, healthful activities—indoors and outdoors—are based the more formal lessons in Reading, Writing, and Number; while in Handwork they learn to co-ordinate hand and eye and brain, and in Games (musical and otherwise) they exercise their bodies and from the start learn to "play the game" together as a little community. In short, the Infant School is the essential foundation of the whole educational edifice, of the national health and welfare.

The two pictures on this page give a clear idea of the progress which has been made during the last fifty years. Contrast, for instance, the physical characteristics of the children in the top picture with those in the lower picture. Both these pictures are of the same school, which makes the contrast even more striking. Under-nourishment, mental and physical retardation, cramped conditions and general lack of interest are obvious in the first group.

The second group shows the healthy type of child which can be produced when the main causes of mental and physical defects have been eliminated.

A nation cannot afford to allow the major part of its citizens to be reared under any conditions except the best.

THE SAME SCHOOL TO-DAY: with a class happily at work in the open air, comfortably seated in small chairs at small tables.

VARIED ACTIVITIES

INFANT

THE STORY LESSON: A group of tinies listening, spell-bound, to a story.

LEARNING THROUGH PLAY: out of doors—

—and in the classroom.

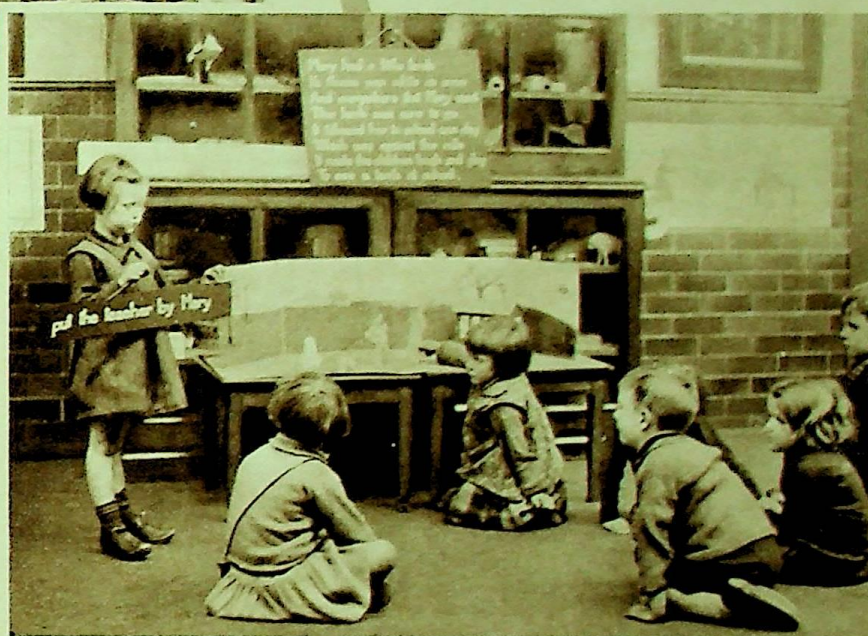
THE TEAM SPIRIT BEING LEARNED through group games, here played in the school hall.

OF A DAY IN AN SCHOOL

THE PERCUSSION BAND, for elementary musical training: it is also valuable for developing a sense of responsibility as the member of a team.

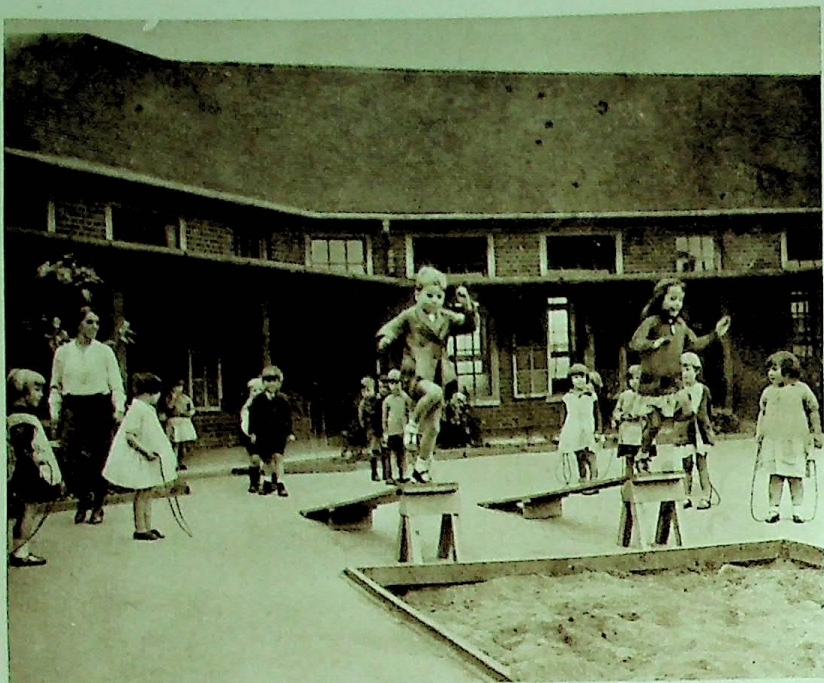
LEARNING TO READ:

ABOVE: The children are learning to read from books.

RIGHT: Here the children have a model scene which they use to show that they can read the sentences displayed.

FIRST LESSONS IN ARITHMETIC:

Sums in the school shop.

Sums in the classroom.

FURTHER INFANT SCHOOL ACTIVITIES

1. GAMES IN THE PLAYGROUND

2. GARDENING

AND—

IN the picture above we see a class enjoying organised games—skipping and jumping, so building strong, healthy bodies. To the right are children at work in the school garden. Many of these school gardens, tended entirely by the children, are fine examples of the gardener's craft. The pictures below represent an excellent example of a type of activity which enables children to work together to a common end.

3. A POND BUILT ENTIRELY BY CHILDREN

MIXING THE CONCRETE.

LAYING THE CONCRETE.

BUILDING THE PIER.

THE POND COMPLETE.

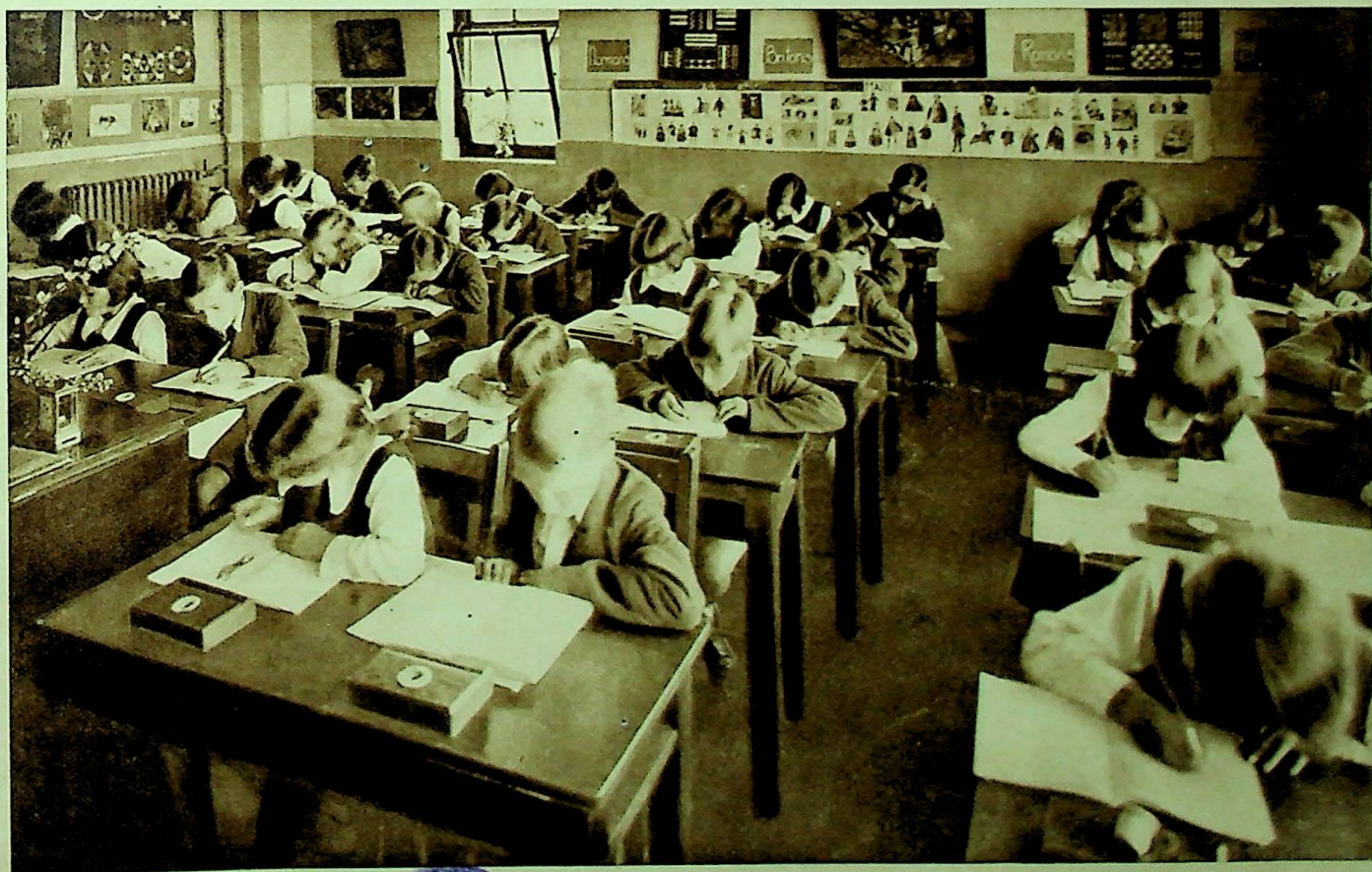
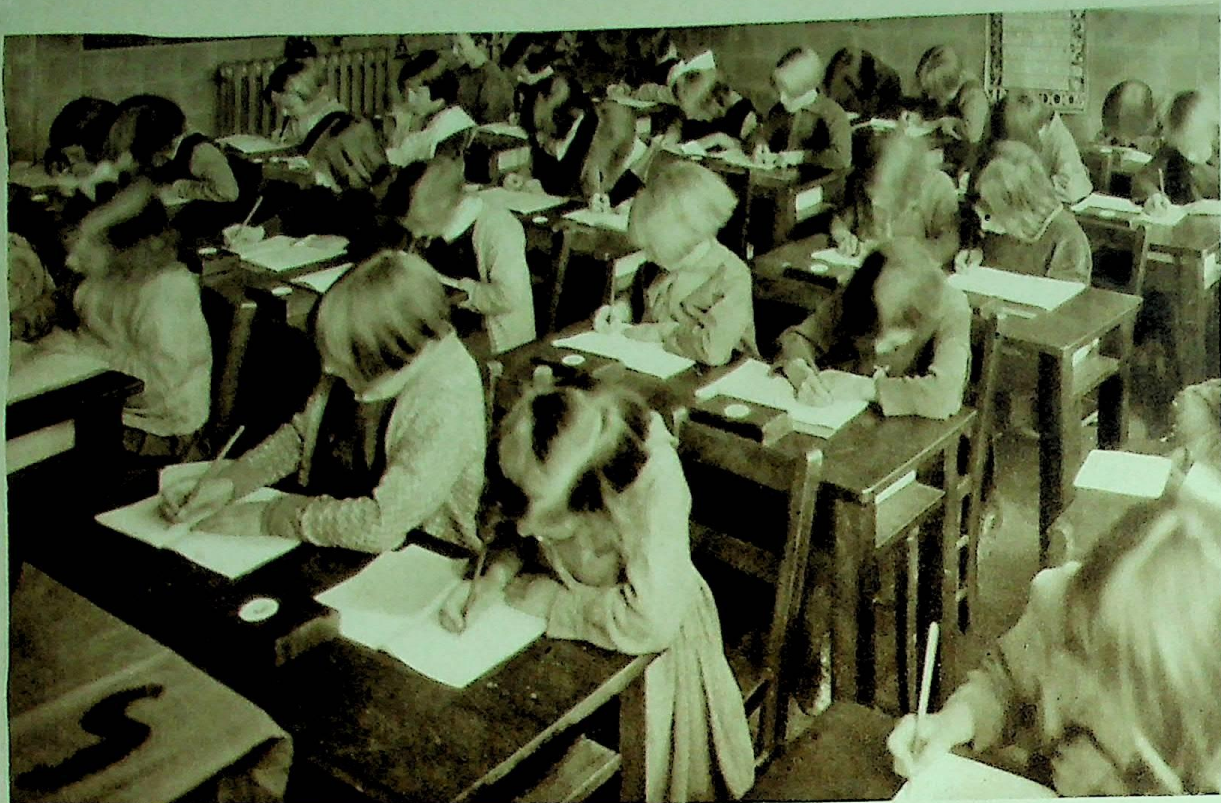
THE JUNIOR SCHOOL

AGES 7 PLUS TO 11 PLUS

A CLASS FORTY YEARS AGO.

AT about the age of seven (or seven plus), the Infants proceed to the next stage, the Junior School or Department, where they stay till about the age of eleven (or eleven plus). There is no abrupt change in method from the "children's garden" (or "Kindergarten") of the Infant School. But the Junior School has a twofold and therefore difficult problem: (1) It provides an education, complete in itself, for the special needs (physical and mental) of the block of children between the infants and the seniors; and (2) it is also the Primary School *par excellence*, the basis not only of the Senior Elementary School but also of the Secondary School or Selective Central School—which children, selected by examinations, can enter at the age of eleven plus.

Its course of studies (i.e. curriculum)—in class and out of doors—is well balanced, and covers a thorough training in the Three R's, in which the more academically inclined pupils reach the "Scholarship" standard for the Secondary School, or pass examinations entitling them to enter Selective Central Schools; all kinds of Craft and Art work; physicial exercises, organised games and music; Nature Study for accurate observation and recording of the processes of Nature. All the activities or "lessons" dovetail, e.g. in a lesson in Practical Arithmetic, the pupils sell and buy, at current prices, at a home-made "shop," count their change, etc., and enter these operations in their arithmetic exercise book, and so on. The insistence upon Craft work is a modern development resulting from a realisation of the fact that a very large number of children are not likely to benefit from a prolonged course of study of an academic character. This new type of craft work, however, is not in the nature of a "frill"; on the contrary, it definitely trains the mind and the hands to work together, and in due course to produce skilled craftsmen capable of creating the work illustrated in pages 30-37.

The two pictures on this page provide yet another striking example of the visible effect which the training in our schools is having on the growth and morale of the nation. That training it is true is mainly dependent on the knowledge and enthusiasm of our teachers, but their efforts are obviously strengthened and widened by the provision of healthy and well-equipped buildings.

A TYPICAL CLASS TO-DAY.

AT WORK

JUNIOR S

ONE OF THE THREE R's: WRITING.

CRAFT ROOM—a necessity in every properly equipped Junior School.

PASTEL WORK helps to train the hand and eye and give a sense of colour and design.

O CUTTING involves a combination of Art and Craft.

TOY-MAKING as a means to an end—craftsmanship.

...N THE SCHOOL

ANOTHER OF THE THREE R's: READING.

NEEDLEWORK HAS AN IMPORTANT PLACE in the curriculum for girls. Here are two classes busily at work.

RAFFIA WORK—a useful and interesting craft.

LEATHER WORK—an artistic and at the same time useful

AT WORK AND PLAY IN THE OPEN AIR

AN ACTION SONG—which disciplines a child's natural desire for movement and vocal expression.

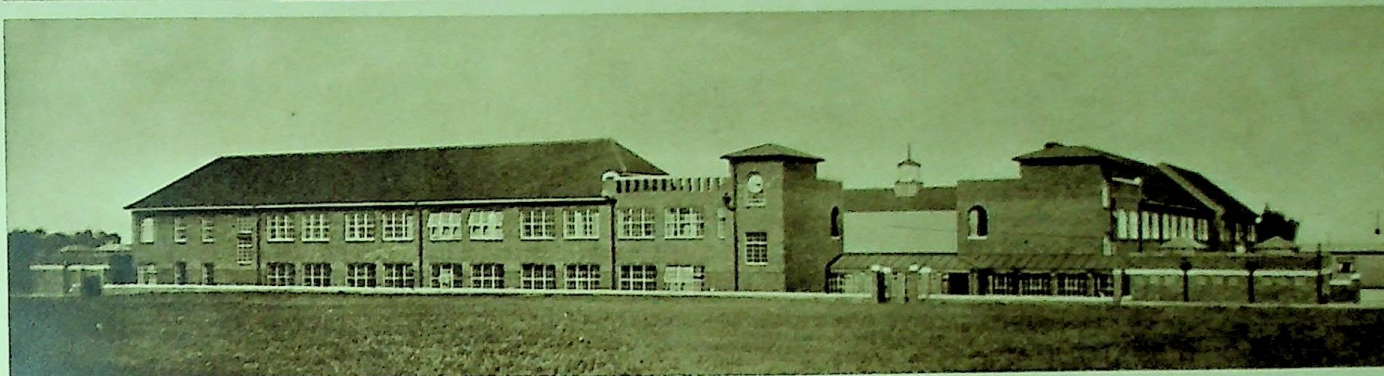
A GEOGRAPHY CLASS at work on a map which they are making in the school playground.

FOLK DANCING—a healthy exercise in the open air.

MAYPOLE DANCING on the school lawn.

A TEAM GAME in progress.

THE SENIOR SCHOOL

THE LAST THREE YEARS AT SCHOOL FOR THE MAJORITY OF CHILDREN

THE LOWER PICTURE SHOWS A NEW SCHOOL BUILDING which has replaced the building in the top picture.

HAVING laid the foundations in the Infant School, and built firmly upon those foundations in the Junior School, the pupils who have not gained admission to Secondary Schools or Selective Central Schools, now enter (at eleven plus) the non-Selective Senior School, where they extend and deepen their knowledge, apply it to the practical problems of everyday life, and, above all, discipline themselves as members of a self-governing community. All this has to be accomplished in three years, and a finished product turned out of school at the age of fourteen plus.

Short as is this period—desperately short if all the teacher's legitimate ambitions are to be realised—nevertheless the Senior School, containing, not selected pupils, but children of every type of ability and temperament, is an epitome of the national life, the training ground of the future manhood and womanhood of the whole nation.

The pictures on this page form a contrast which is obvious between the old cramped school and site (top left-hand corner) and one of those all too rare modern schools, having all its classrooms convertible into open-air rooms, leading through a verandah to the playground; and its hall for mass instruction, school assemblies, and public meetings. It should be remembered, however, and this applies, of course, also to Infant and Junior Schools, that there are still a large number of All-Department Schools, under one Head Teacher, in which the separation into Infant, Junior and Senior Schools, with adequate arrangement for the development of characteristics peculiar to each type of school, has not taken place. In such schools, while internal reorganisation into separate departments may have been instituted, it is obvious that the placing of three separate entities under one Head Teacher is not likely to be so effective as complete separation.

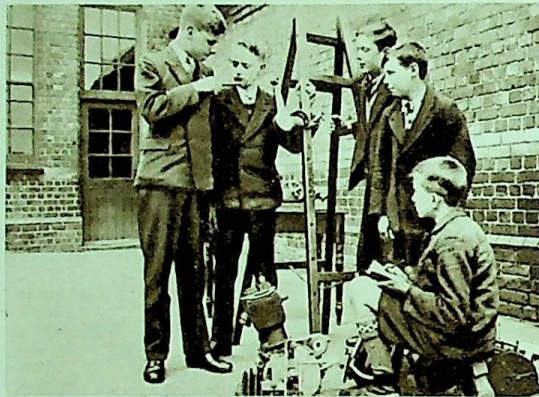
Before this reorganisation took place many children who were not academically inclined were considered to be bordering on the mentally defective, and were often allowed to stagnate in the lower classes of the Junior school. In point of fact, however, a very large number of these children were not mentally defective, but merely mentally retarded. Bad housing, under-nourishment or lack of adequate sleep, all contributed to a later development of mental ability as understood by academic attainment, but many teachers found that very often the supposedly mentally defective child reacted in an extraordinary manner to activities which involved the use of the hands. It was difficult, however, under the old organisation, to make adequate arrangements for suitable craft work. Overcrowded classes, intensive coaching of the "brighter" pupils for examinations, and the care needed for those who were just average, left little time for the "duller" pupils. But, by removing all children irrespective of mental attainment to specially prepared non-selective Senior Schools, facilities were made available for the effective development of the faculties which each type of child possesses. The child, for instance, who was slightly mentally retarded at the age of eleven plus, and therefore missed an entry to a Secondary School or a Selective Central School, is enabled to catch up some of the lost ground through a modified form of the type of education he would have received in a Secondary School. Other children, who are not likely to profit by a serious extension of an academic course, are provided with ample opportunities for the use of their hands through the medium of the many crafts now taught in the schools. To-day the Senior Schools are attaining a very high standard of efficiency, in spite of innumerable difficulties, at the bench, in the workshop, and in the classroom. Often, it is the main educational and social centre of its locality, where the pupils are trained in all those activities—disciplinary, cultural and craft—essential to fit them for after-school life.

ANOTHER VIEW OF THE NEW BUILDING showing children in the quadrangle.

SENIOR BOYS

A WOODWORK ROOM.

GENERAL SCIENCE IN A CLASSROOM: pupils learning the first principles of science by means of simple experiments.

FINDING THE MAGNETIC VARIATION —a practical application of the science lesson.

CALIBRATING A SHOCK-ABSORBER is another practical application of scientific principles learned in the laboratory.

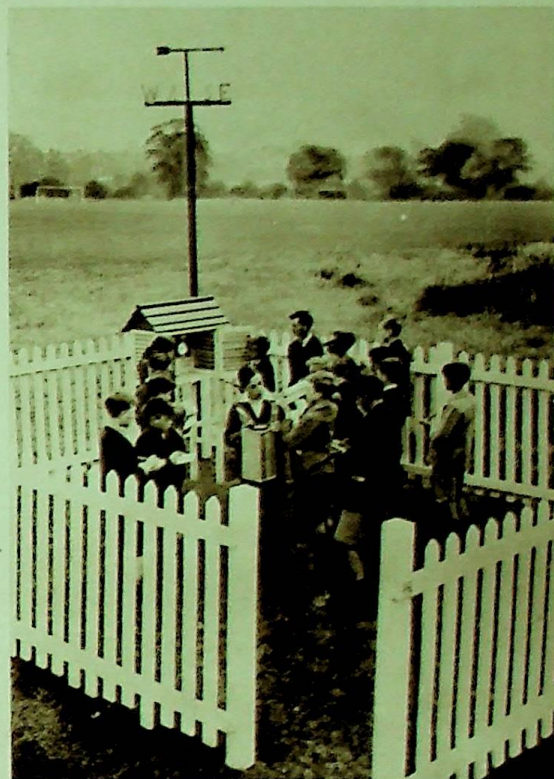
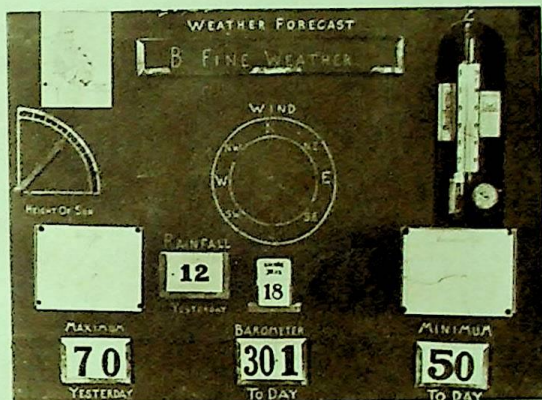
CIENCE MAKES AN IMMEDIATE APPEAL to the average y; here is a class intensely interested in a lesson on light.

CLASSROOM MATHEMATICS should be capable of practical application to be really useful. Here, for instance, is a surveying party measuring the school playing fields.

AT WORK

A LABORATORY in which the pupils learn the elements of electricity, physics, etc., and apply them to many useful purposes.

A METALWORK ROOM.

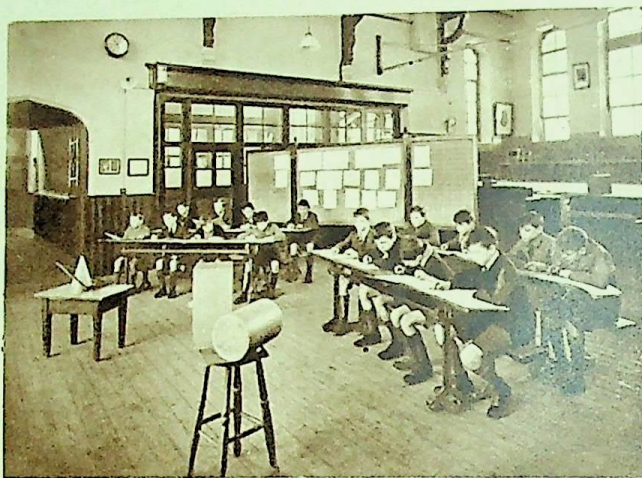
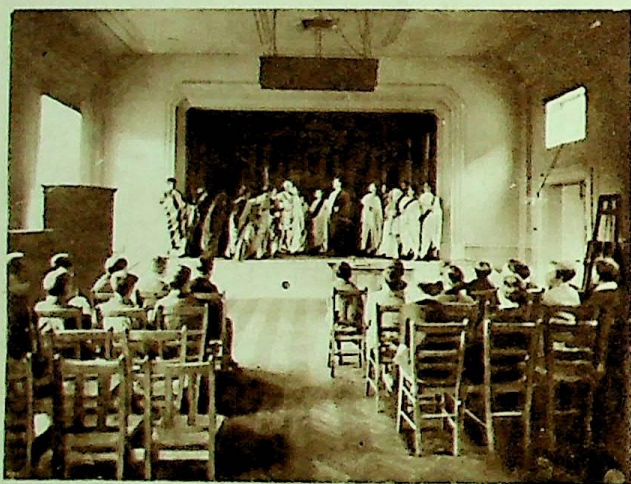
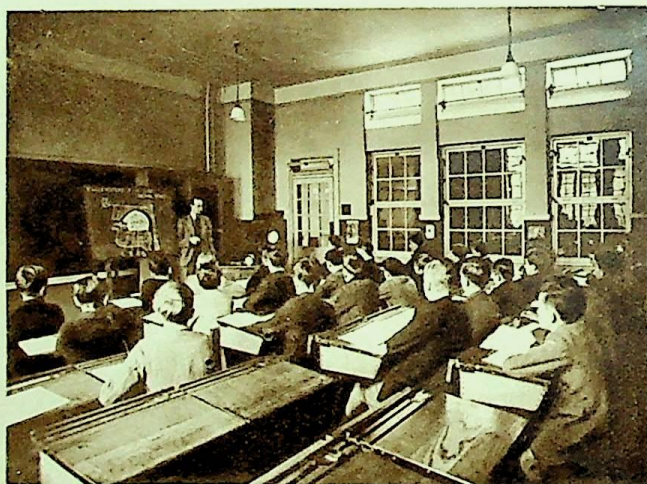
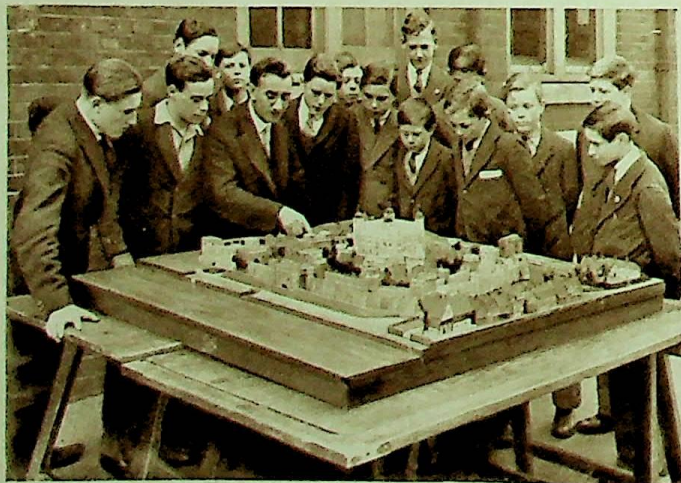
A WEATHER REPORT made daily from observations at a school weather station.

A SCHOOL WEATHER STATION. Often the records obtained are used by the local meteorological station.

FINDING HEIGHTS OF BUILDINGS is another practical application of classroom mathematics.

VISUAL EDUCATION—an accepted part of modern teach practice—enables the teacher to illustrate his lessons m adequately.

SENIOR BOYS AT WORK IN THE LIBRARY, IN THE CLASS-ROOM AND OUT-OF-DOORS

PRIVATE STUDY IN THE LOCAL LIBRARY.

A GEOGRAPHY ROOM.

AN ART CLASS.

A DRAMATIC PERFORMANCE, the clothes and properties for which have been made by the pupils.

SPEECH TRAINING: the physiological aspect of the subject is here being demonstrated.

A CORRELATION OF SUBJECTS is the aim of every well-organised school. This model was made in the craft lesson, and now its historical significance is being studied.

HISTORY LESSONS are not only confined to the classroom; here we see children "digging up" history.

A SENIOR SCHOOL FOR GIRLS

THE COOKERY ROOM.

THE LAUNDRY ROOM.

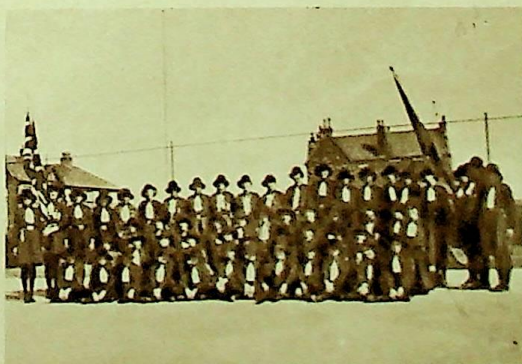
HERE we have a modern Girls' School as a self-contained community, engaged in living a complete and orderly life; practising all the Arts and Crafts of domestic life; sharing in the care, decoration and repairs of their home-school; gaining health and physical fitness in exercise and game, in Girl Guide troop and school camp—aiming, in fact, at a full training for modern citizenship.

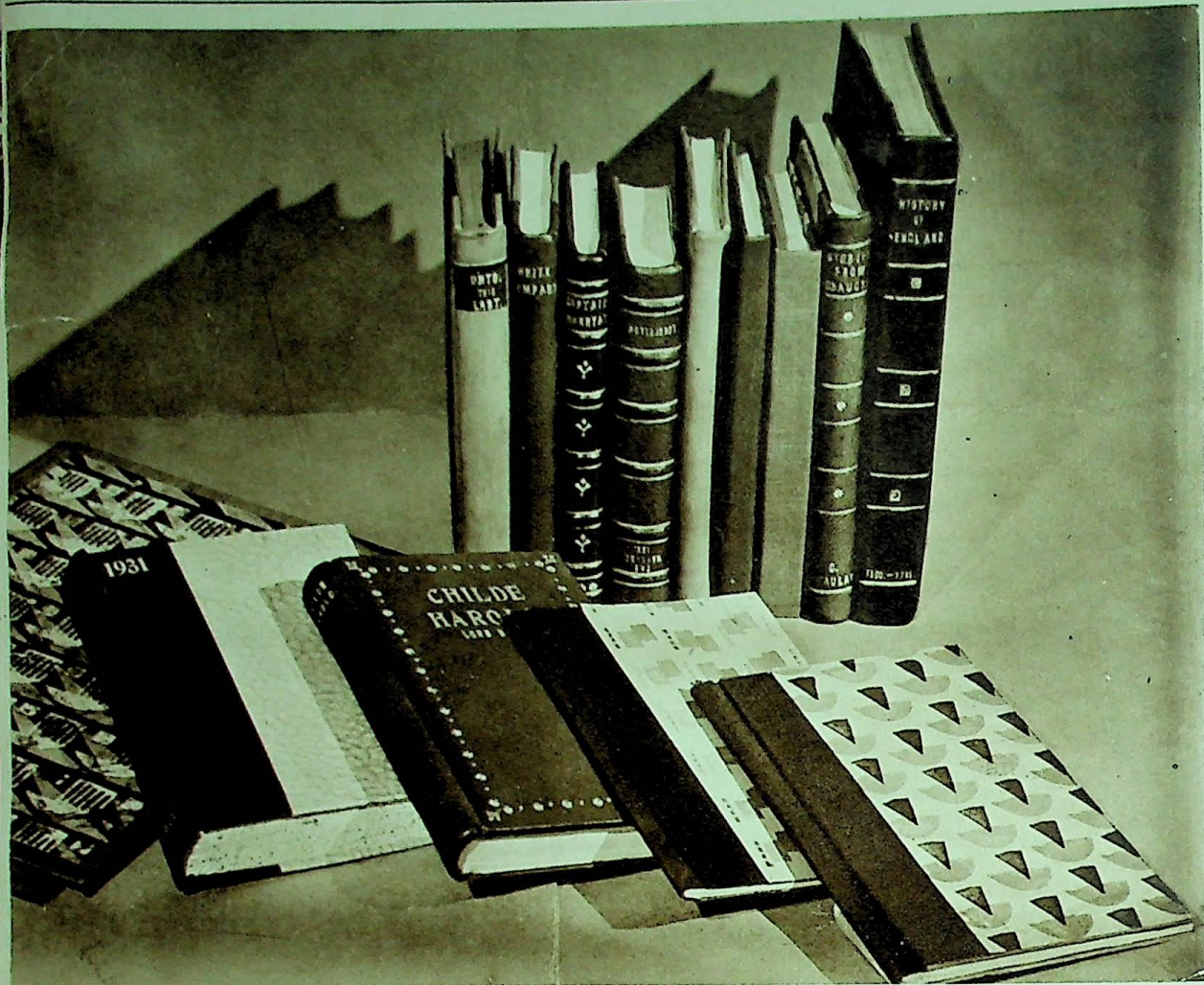
EVEN GIRLS DO WOODWORK.

A CLASS OF GIRLS wearing dresses they have made in the needlework lesson.

A NATURE STUDY RAMBLE.

A BIOLOGICAL LABORATORY; biology is a subject which is becoming increasingly popular in the schools.

A NEEDLEWORK ROOM in which the girls learn household needlework and dressmaking.

THE GIRL GUIDE MOVEMENT, like that of the Boy Scouts, has an important place in the activities of the youth of the Nation. In the first picture we see a school troop of Girl Guides, and in the second Girl Guides at their annual camp.

HANDICRAFT LESSONS—WHERE CHILDREN

SOME FINE EXAMPLES OF BOOKBINDING.

NOTHING shows so graphically the advance which Elementary Education has made—and the increase in the skill and qualifications of teachers and in what is nowadays expected from them by the State—as the great variety and excellence of the work in Arts and Crafts. It should be noted that apart from work done in Woodwork and Metalwork centres under the guidance of trained experts, all the examples of work shown on these and the following pages have been done under the influence of teachers who have to take Arts and Crafts in their stride, and as an addition to their work in the normal curriculum.

As we have indicated in another section, no apology is needed for the space which is now devoted to examples of various arts and crafts, since this is "Learning by Doing and Making," and the application of the instruction given is a vital contribution of education to Industry in a country which lives by manufacturing. It is only by the utilisation of skilled craftsmanship, however, that improvements in design and workmanship can be attained, and it is here

USING A SEWING FRAME FOR BOOKBINDING.

OPEN-AIR SCHOOLS—WHERE WEAKLY BODIES ARE MADE STRONG

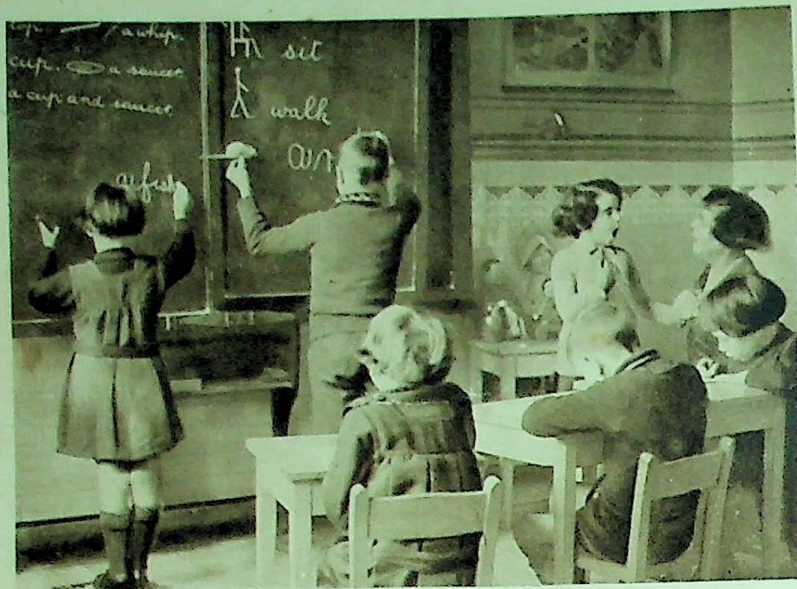
AN OPEN-AIR GEOGRAPHY LESSON in progress with the aid of a map of the Empire made in the school grounds; the lack of clothing enables the pupils to receive the maximum benefit from the sun.

BOYS AT AN OPEN-AIR SCHOOL repairing their beds.

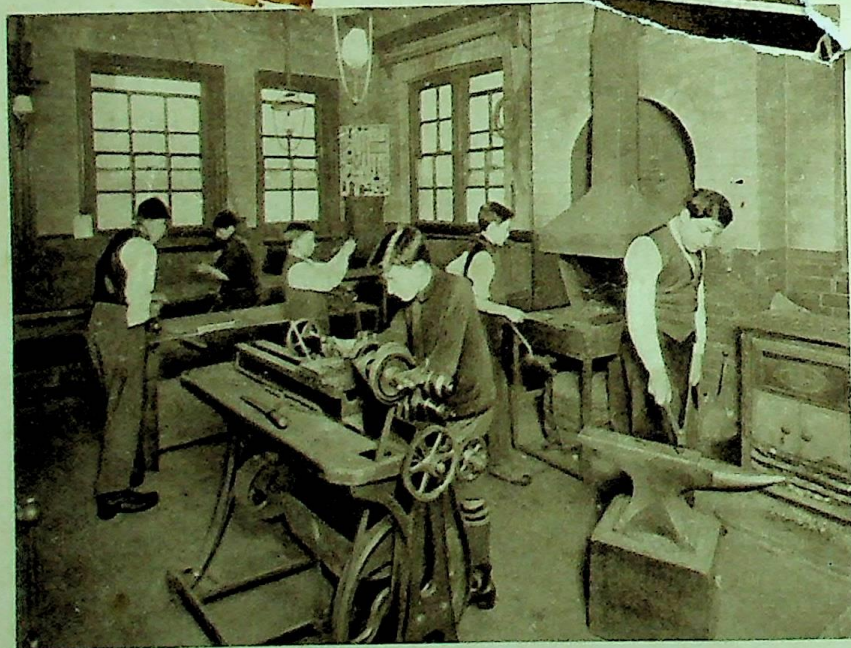
A[illegible] OPEN-AIR SCHO[illegible] a city park.

[illegible]CLASSROOM SITUATED ON A PLAYING FIELD: boys from a [illegible]hool in an overcrowded district spend one day each week at the field, dividing their time between the playing field and the classroom.

TUBERCULAR CHILDREN at work in the open air.

TRAINING DEFECTIVE CHILDREN

DEAF AND DUMB CHILDREN learning lip-reading and speech and the elementary school subjects.

THIS BLIND GIRL is learning to use a typewriter.

BLIND CHILDREN READING BRAILLE.

MENTALLY DEFECTIVE CHILDREN in the workshop.

PHYSICALLY DEFECTIVE CHILDREN being taught to use their hands through craft work.

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SOME FINE EXA

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LEARN USEFUL ARTS AND CRAFTS

REPRESENTATIVE EXAMPLES OF RAFFIA BASKETRY.

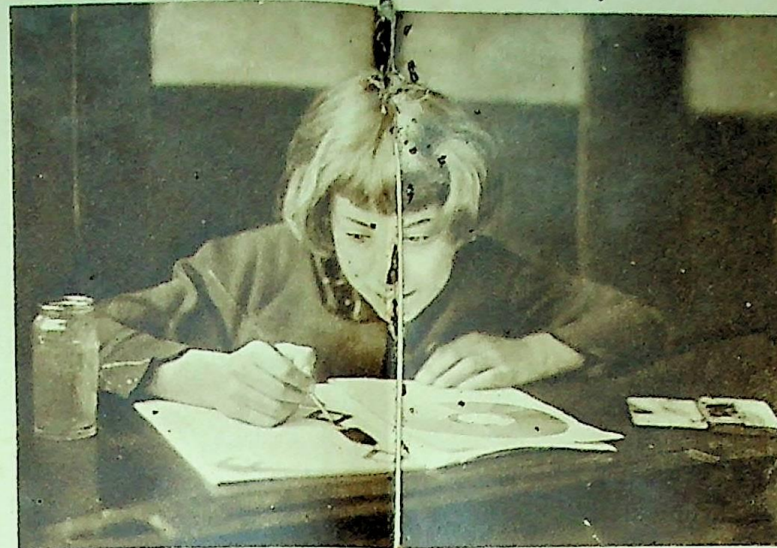
RAFFIA WORK ON CANVAS.

that the schools, by training pupils to produce, and to take pride in, good work, are serving the real needs of Industry. For it should be remembered that modern craft work in the schools is not a mere tinkering with an isolated process, but is a serious attempt to deal with all the processes involved in a selected craft.

Manual skill and the development of an artistic sense are the basic principles involved in all the crafts here depicted, and the high standard attained in many schools is amply illustrated by the pictures. Apart altogether from the utilitarian value of such craft instruction, there is a definite cultural side to all such activities, since the citizens of the future are being taught the means whereby they can beautify their homes and also carry out simple repairs.

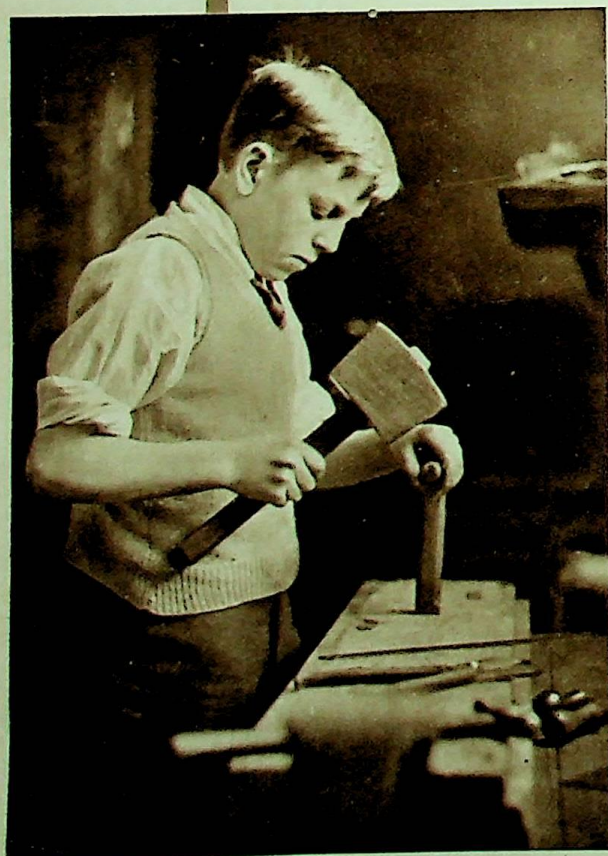
The pictures on pages 36 and 37 afford interesting examples of the manner in which the schools are keeping abreast of modern inventions. Too many adults are merely turners of knobs or pullers of levers, but here we see children being taught the scientific principles involved in an internal combustion engine, a telephone exchange, a wireless set, and other devices.

HANDICRAFT LESSONS IN PROGRESS

A POTTERY KILN and examples of pottery produced in the schools.

A GIRL LEARNING THE ELEMENTS OF DESIGN.

BOYS AT WORK ON THE MODEL OF A CASTLE, to be used subsequently in the history lesson.

EXAMPLES OF WORK done in a Boys' Senior School.

A CLASS LEARNING THE PRINCIPLES OF LETTERING.

A SKILLED CRAFTSMAN IN THE MAKING.

BOYS BUSILY ENGAGED AT THE BENCH.

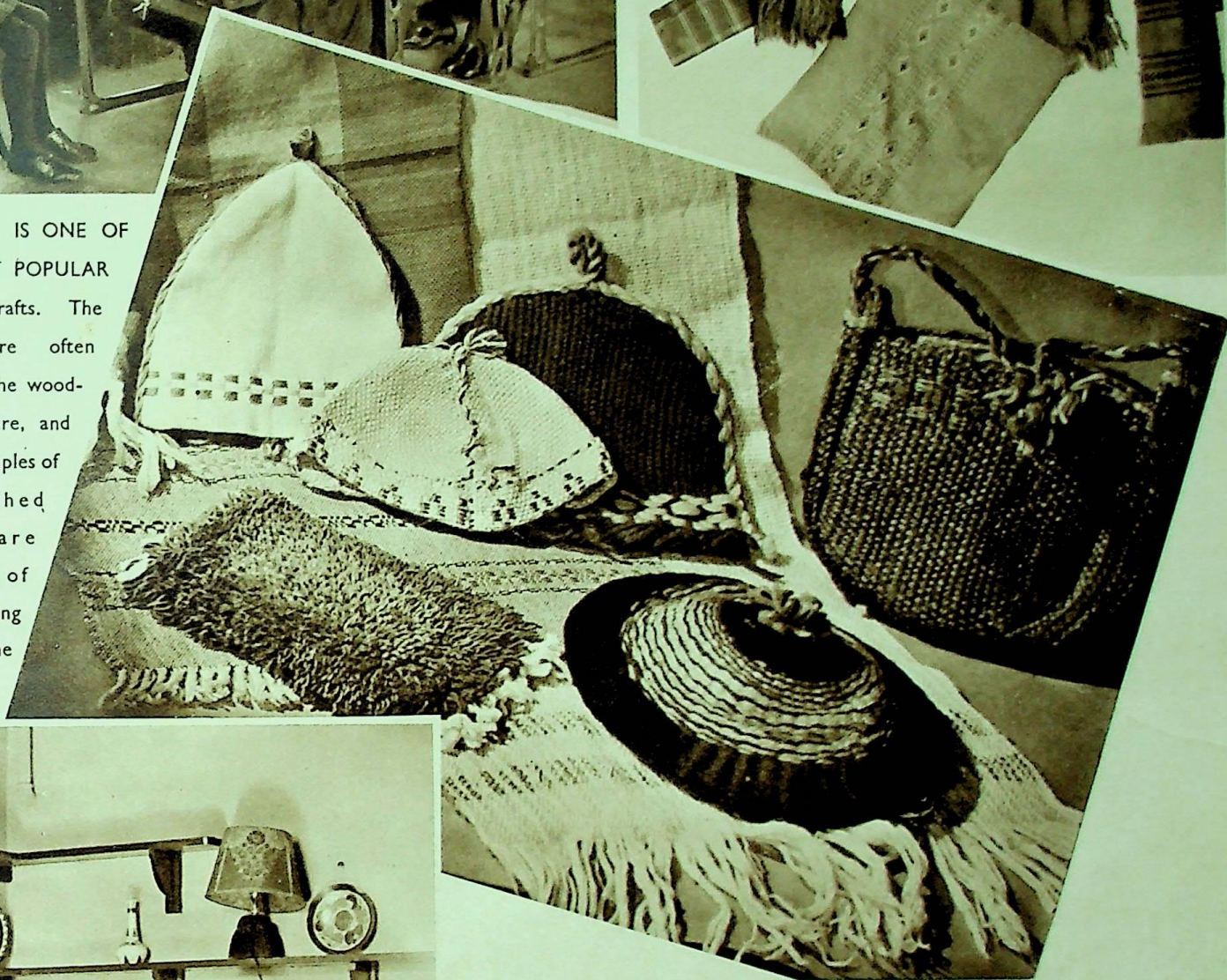
LEARNING TO RE-SEAT A CHAIR.

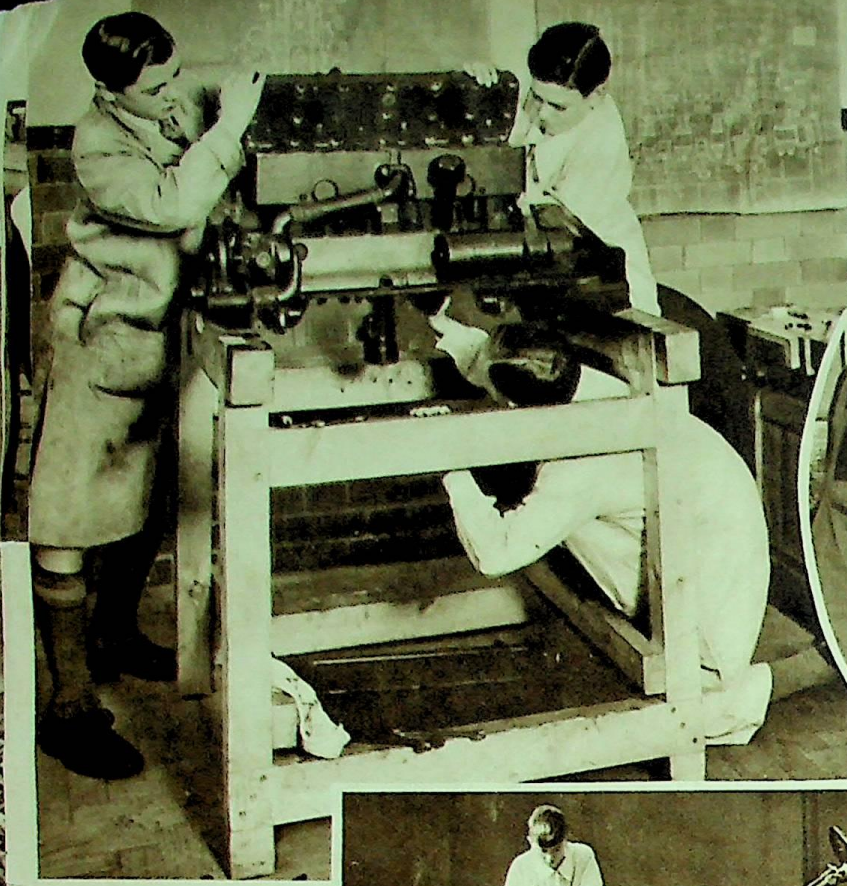
BASKETRY AND RUG-MAKING

IN THE TOP PICTURE we see a girl engaged in basketry, and in the lower picture examples of the kind of work which is produced in many schools.

RUG-MAKING on the scale shown in this picture provides an excellent opportunity for team work—each girl taking an assigned part in a communal effort.

WEAVING AND MISCELLANEOUS CRAFTS

WEAVING IS ONE OF THE MOST POPULAR of school crafts. The looms are often made in the wood-work centre, and these examples of the finished work are typical of what is being done in the schools.

ALL THE ARTICLES SHOWN IN THESE TWO PICTURES, including the girl's frock, have been made in the various craft lessons.

THE MECHANICAL AGE

N THE PICTURE TO
'HE RIGHT the boys are
earning how the engine
of a motor-car works.

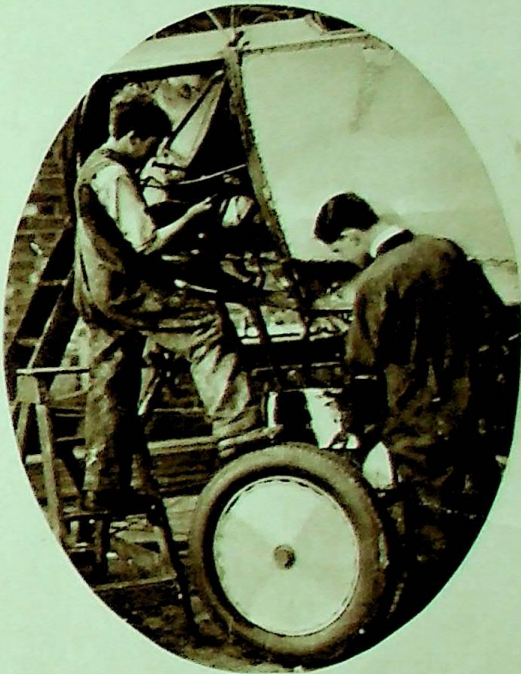
N THE PICTURE ABOVE
he engine has been
emoved to the workshop
for closer inspection.

N THE CIRCULAR
PICTURE, boys are print-
ng their school magazine.

LEARNING HOW THE TELEPHONE WORKS: These pictures were taken at a London school, where all the telephone instruments, fittings, and batteries have been made by the boys under the supervision of their Science Craft Instructor. There is an Exchange, operated, in relays, by eight boys and girls, by which the Head Master keeps in touch with his colleagues and with his Prefects; with the latter rests the disciplinary routine, as elsewhere in Elementary Schools.

REFLECTED
IN THE
SCHOOLS

AN OLD-TIME CRAFT REVIVED—that of the blacksm

A GROUP ENGROSSED IN THE STUDY OF WIRELESS.

AEROPLANES ARE THE TRANSPORT OF THE FUTURE: here we see schoolboys learning, at one of the big aerodromes, to become skilled aeroplane mechanics.

ABOVE: Schoolboys having a lesson on metal-drilling, at a local foundry.
RIGHT: A class at a metal-work centre.

A SENIOR SCHOOL IN A RURAL DISTRICT

IN sparsely populated districts the problem of providing efficient education for Seniors is very difficult. In order to surmount these difficulties as much as possible, centralised Senior Schools have been established, to which the small Junior Schools of the surrounding district send their eleven plus pupils. Adequate transport has to be provided, and also meals for those pupils who cannot get home at midday.

The children in these schools are being trained to take their places as responsible citizens in a rural community, and in the following pictures we see boys and girls working at kitchen and decorative gardening, at the bench, at laundry and cookery, in addition to the normal academic course and craft work. We see them, too, at school dinner, which is provided at small cost.

By these means there is being made available to children in rural districts as liberal an education as is available for children living in towns and cities.

AT WORK IN THE KITCHEN GARDEN, where the science of raising crops is learned.

A DAY IN THE LIFE OF A RURAL SCHOOL

ARRIVING AT SCHOOL from outlying districts by motor-bus and bicycle.

A WOODWORK ROOM.

A DOMESTIC SCIENCE ROOM, in which the girls learn laundry, how to cook the midday meal, etc.

SCIENCE IN THE CLASSROOM.

THE MIDDAY MEAL.

GIRLS ENGAGED IN NEEDLEWORK.

A CRAFT ROOM showing a loom for weaving and apparatus for bookbinding.

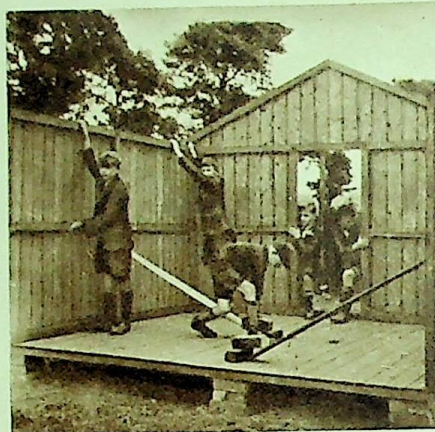
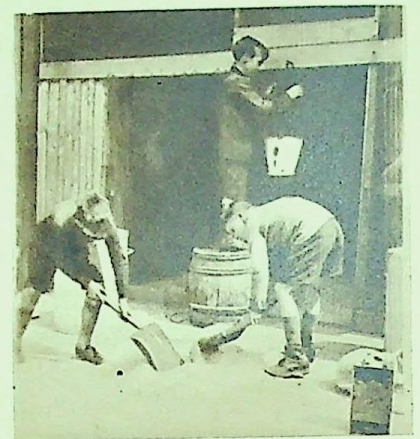
RURAL ACTIVITIES AND—

AT WORK IN THE GREENHOUSE.

MANY rural schools, in addition to the normal curriculum of the town school, correlate their lessons, especially Science, with Agriculture, Decorative and Household Gardening, and other activities associated with the countryside. The pupils not only learn about the cultivation of vegetables, the eradication of pests, scientific pruning and grafting of fruit trees, etc., but also undertake scientific experiments with cereals, grasses and manures, of great value to local farmers and smallholders, and often supervised by the Agricultural and Horticultural colleges. The practical side of farming is also studied, as is illustrated by the pictures of ploughing and sheep shearing.

In town schools, beautiful and useful gardens are constructed, and often, as is shown in the picture of a garden in an overcrowded district, with very unpromising material.

WIRE FENCING A POULTRY RUN.

BUILDING THE SCHOOL GREENHOUSE: in the foreground boys are tending a vegetable garden.

BUILDING A POULTRY HOUSE.

MIXING POULTRY FOOD.

BOYS LEARNING SHEEP-SHEARING.

A LESSON ON THE ART OF BEE-KEEPING.

HERE BOYS ARE FOLLOWING A COMPETITOR—a former pupil at their school—in a ploughing competition.

—TYPES OF SCHOOL GARDENS

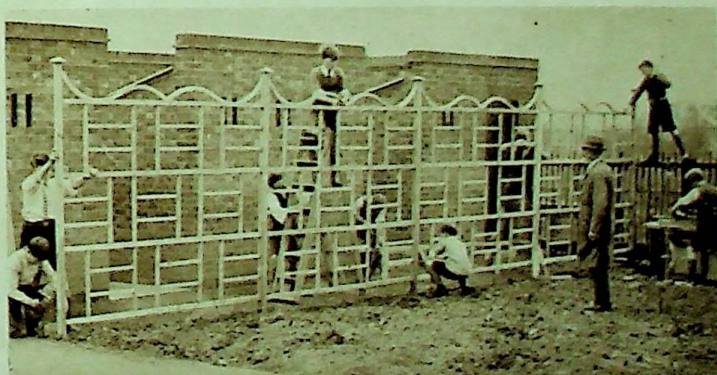
LEFT: AN EXAMPLE OF A SCHOOL GARDEN.

RIGHT: A FINE POTATO CROP GROWN BY THE BOYS OF A LONDON ELEMENTARY SCHOOL.

BOYS AT WORK IN THE GARDEN in the school quadrangle: notice the forcing frames in the background.

IN CIRCLE: A flower and vegetable garden in the heart of an overcrowded district.

A FLOURISHING VEGETABLE GARDEN

A FLOWER BED BEING MADE in a town school.

ERECTING A ROSE TRELLIS made in the practical room.

TRAINING THE WIVES AND

THERE is probably no subject in the school curriculum which has such a direct bearing upon after-school life as Domestic Science. Perhaps it would be truer to say "collection of subjects," since the term includes Cooking, Laundry, General Housekeeping, Mothercraft, etc. It is rightly called a Science, since modern methods not only include the practice but also the theory of each subject. In the Cookery class, for instance, the reasons why certain foods are necessary to health are discussed and the pupils are taught to choose well-balanced menus. Again, in the Laundry lesson, methods are studied for ensuring that materials shall be damaged as little as possible in washing.

Recently, a number of authorities have arranged for classes of girls to attend the local clinics in order to study some of the problems of Mothercraft. Experience has shown that instinct is often a poor substitute for knowledge, and the mother who objected to the "interference" of a child welfare visitor on the score that she had had seven children and buried four is a good example of misguided zeal.

Child welfare clinics have become indeed one of the most hopeful instruments of social well being, and their use by school authorities will, in the future, undoubtedly be widely extended.

To-day, perhaps more than at any other period in our history, people of all classes are becoming householders. Slum clearance and new housing estates are changing the features of the countryside. It is fundamentally important, therefore, that through mothercraft and housecraft the new type of citizen should be fully equipped to live in what is to many an entirely fresh environment. Cleanliness is the greatest enemy of disease, and sane internal and external decorations instil a civic pride which will in due course prevent these new building estates from reverting to slum conditions. Therefore, the work that is being done in the schools and which is represented in some degree by the pictures in this section, has a very direct and important bearing upon the future welfare of our race.

A DRESSMAKING CLASS where all the stages of the subject are taught.

THE MAKING OF LARGE ARTICLES of needlework is frequently undertaken by a group of girls. Here we see four girls at work on appliqued quilt.

LEARNING TO LOOK AFTER "BABY" at the Domestic Centre.

Above: A CLASS OF GIRLS at the local child welfare clinic.

Right: THE CLASS WATCHES BABY being weighed.

MOTHERS OF THE FUTURE

ABOVE: Learning the art of pastry-making.

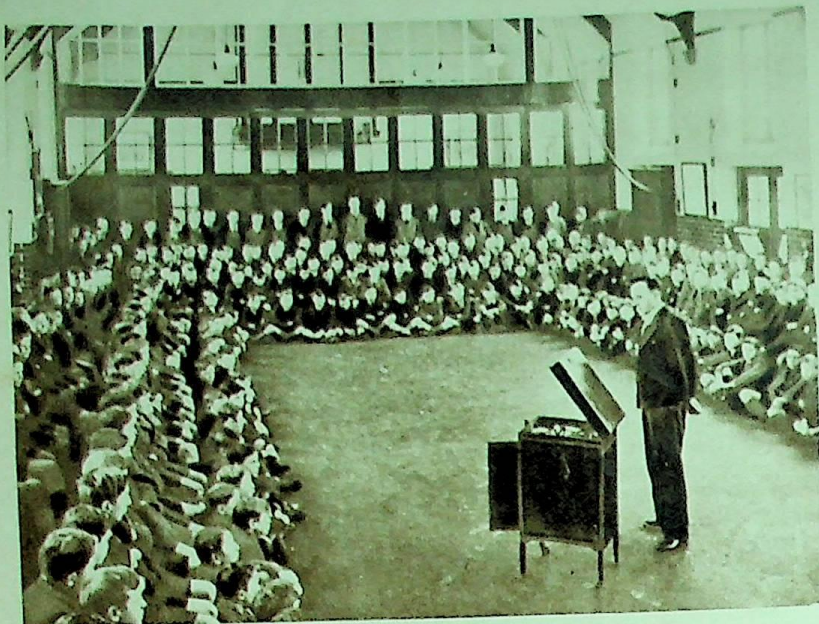
IN CIRCLE: A mysterious saucepan-full, being brought to perfection on the gas stove.

RIGHT: A class learning ironing, cooking, and elementary upholstery.

ABOVE: Domestic science teaching under ideal conditions. This is a view of the domestic centre in a new, up-to-date school.

ABOVE: Learning to make a bed at the housewifery centre.

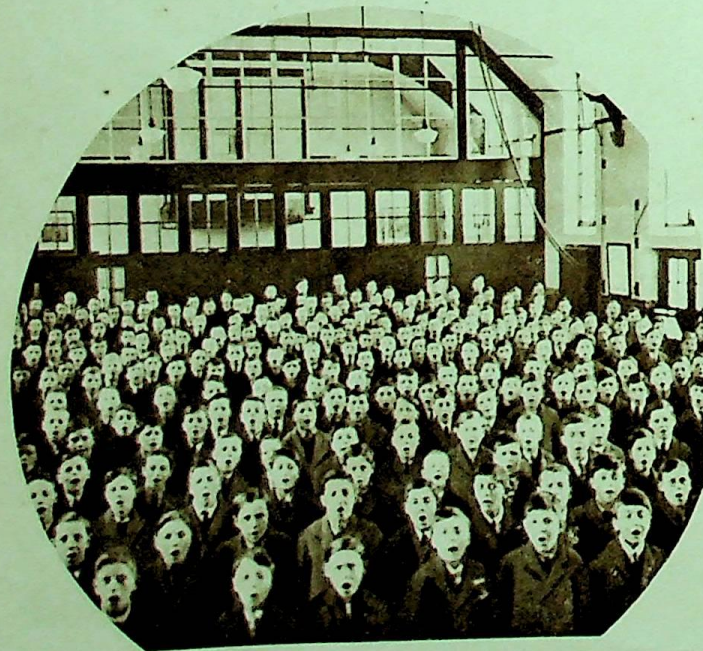
BELOW: The laundry class.

MUSIC IN THE SCHOOLS

A MUSICAL APPRECIATION LESSON in the school hall.

UNTIL recently, "school-music" meant simply class-singing. As the pictures on this page show, it is now, however, coming to have a much broader connotation. The cultural value of music is unquestioned, and, properly taught, music can be of immense value to the child, not only during his school days, but as an interest for his leisure hours on leaving school. Musical appreciation and theory of music are now being linked to practical music—to singing, to the playing of an instrument, and to performance in a school orchestra. Almost every infant school has its percussion band, the primary object of which is to develop a sense of rhythm; while many junior and senior schools have their musical appreciation lessons, which teach the child to listen to music, their eurhythmic classes, their violin classes, and the fortunate few have their school orchestras.

A CHOIR AT A SCHOOL EISTEDDFOD.

A BROADCAST LESSON on the theory of music.

A VIOLIN CLASS about to begin practice: the children are enabled to buy their instruments by paying for them in small instalments.

COMMUNITY SINGING IN THE SCHOOL HALL.

A PIPE ORCHESTRA: these pipes are made by the pupils in their craft lessons. This particular orchestra also includes a violinist and a drummer.

PHYSICAL EDUCATION

WE have now seen something of the manifold ways in which the Public Elementary Schools are training the minds and providing cultural standards for the 5,000,000 children educated under this system. But there is another important aspect of school life which has only been dealt with in passing, namely Physical Education. Here a clear distinction must be drawn between the creation of healthy bodies by means of physical training in all its forms, and the prevention and cure of disease, which is dealt with under the Health Services. It is the first with which we are concerned in this Section.

In many European countries physical education plays a much more important part than it does in Great Britain. There are at least two fundamental reasons for the high position assigned to physical education abroad. Firstly, there is a frank recognition that most of the time and money spent upon attempting to teach tired minds in unhealthy bodies is wasted. We have already suggested that a good deal of so-called mental deficiency is in reality mental retardation due very often to faulty physical conditions. Secondly, it is realised in these countries that a modern state cannot afford to allow its citizens to degenerate physically. This accounts for the astonishing spectacle of mass physical training displays which are common in such cities as Berlin and Rome.

With regard to the prevention and cure of disease, the Ministry of Health, as pictures on pages 61-64 will show, is making tremendous efforts to diminish preventable disease, but as far as physical training is concerned, it must be admitted that much still remains to be done. Yet periods for physical exercises are included in the time-table of every school, and under the wise guidance of the Board of Education this activity has become more varied and useful, as our illustrations show. Organised games are largely left to the voluntary efforts of the teachers. Fortunately for the community, the teaching profession has rallied in no uncertain manner to provide them. By an enormous expenditure of personal leisure and income they have organised Football, Swimming, Athletics, Netball, etc., and the pictures on pages 46 and 47 are an eloquent testimony to their work.

With the publication, however, of the Board of Education's *Syllabus of Physical Training for Schools*, 1933, pictures from which are reproduced on this and the following page, an ideal is now presented to the Local Authorities of Physical training as distinct from school games.

BOYS PRACTISING THE LONG JUMP.

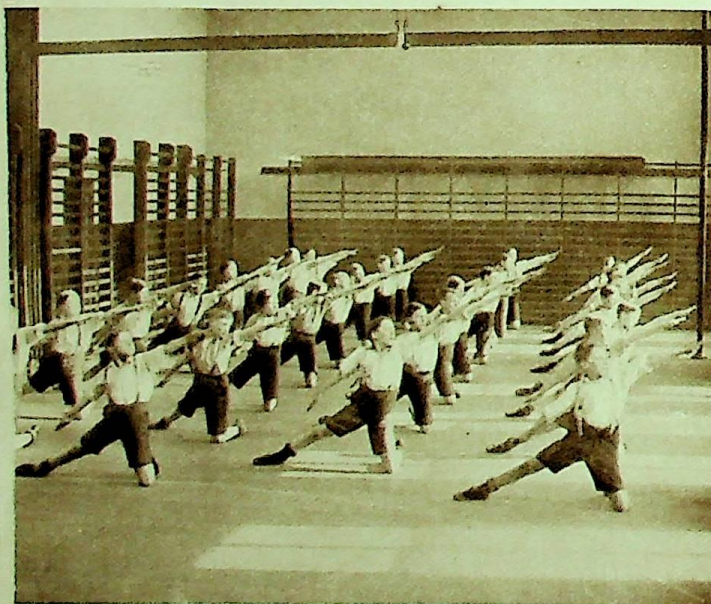
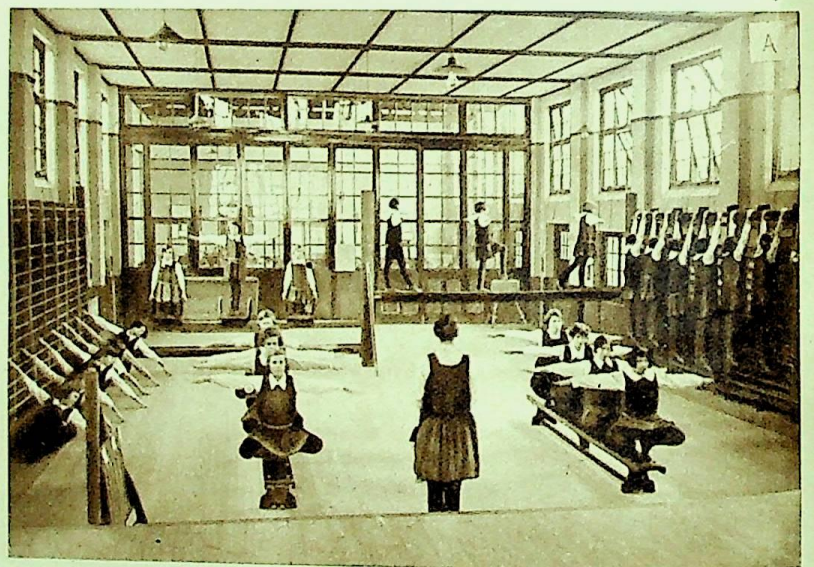
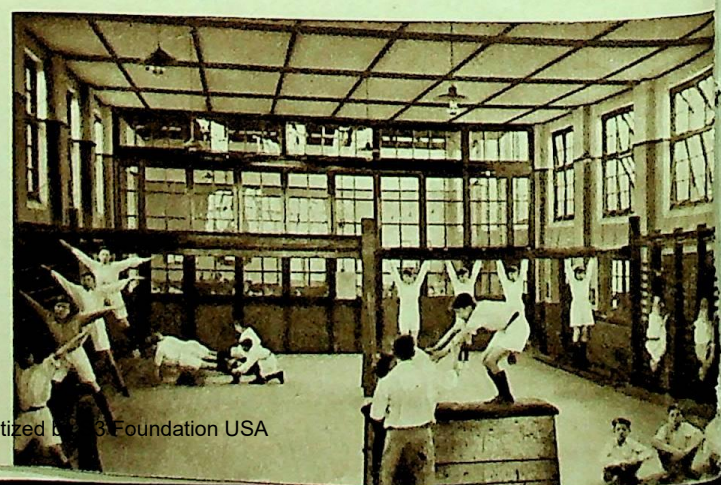
LEFT : a preliminary stage before the perfect balance of the picture on the right can be achieved. The centre picture shows a "free activities" period.

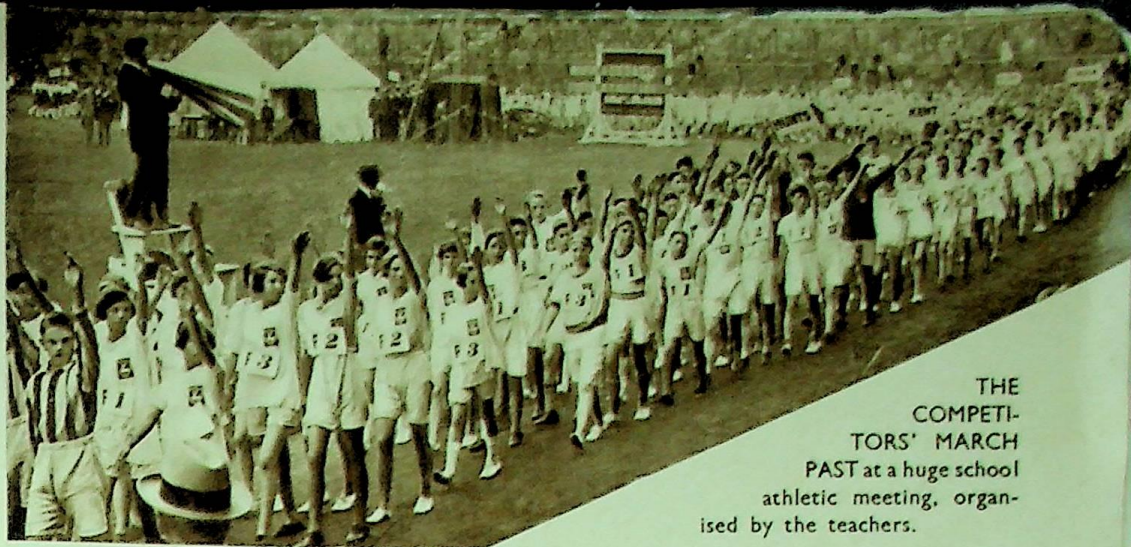
HEALTHY BODIES IN THE MAKING—

JUNIORS RUNNING EAGERLY to begin their organised games period.

ENJOYING A BALL-AND-HOOP TEAM GAME.

A WELL-ORGANISED PLAYGROUND in an urban school where, through careful organisation, a number of different games are in progress simultaneously.

GIRLS AT DRILL IN THE SCHOOL HALL.

PHYSICAL EXERCISES IN THE GYMNASIUM.

GIRLS AT WORK IN A WELL-EQUIPPED GYMNASIUM.

A BOYS' GYMNASTIC CLASS IN PROGRESS.

—AND IN ACTION

THE COMPETITORS' MARCH PAST at a huge school athletic meeting, organised by the teachers.

THE FINAL OF AN INTER-SCHOOL FOOTBALL MATCH, all stages of which are organised by the teachers.

BOXING IS VERY POPULAR with these London schoolboys.

A GAME OF NETBALL in progress: this game is very popular in girls' schools.

SWIMMING: above we see a class being taught the correct strokes out of the water; below is a class at the local swimming baths.

THE SCHOOLS AND THE COMMUNITY

LEARNING HOW TO VOTE: the pupils of this school hold an annual election of prefects, when the complete procedure of a Parliamentary election is observed, including speeches by the candidates.

A SCHOOL SAVINGS ASSOCIATION AT WORK

A SCHOOL CLUB for past and present pupils.

RIGHT: Voluntary committees provide adequate food and clothing for children in poor districts: here we see one of these "Care" Committees at work.

LEFT: The pupils of this rural school who are unable to go home at midday are provided with a dinner at a cost of 1s. 3d. each per week. The meal is cooked in the cookery room, and served by the children.

EMPIRE DAY, ARMISTICE DAY AND MAY DAY

AN EMPIRE DAY CELEBRATION in the school playground.

ABOVE: School children attending an open-air Armistice Day Service.

RIGHT: May Day celebrated in the traditional manner.

THE pictures on these two pages illustrate some of the ways in which the schools and the community generally are linked together. National festivals afford an opportunity for children to share in the joys or the sorrows of the nation; mock elections and savings' associations train the young to appreciate their duties as individuals and citizens; old scholars' clubs help to make the school a permanent social centre, and, lastly, Care Committees perform the useful function of providing food and clothing for children in poor districts.

The two pictures of gypsy and barge children at school are an eloquent testimony to the fact that provision is made, even under extraordinarily difficult conditions, for the education of every child between the ages of 5 and 14 years.

GIPSY AND BARGE CHILDREN

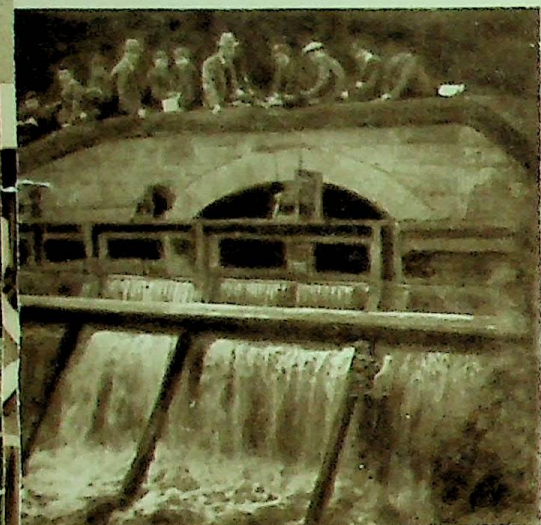
AT SCHOOL ON A BARGE: the barge is equipped as a floating school for the children of canal workers.

A GIPSY SCHOOL in the Surrey woods: the school house is a portable wood and iron building, and the teacher lives in a caravan, ready to follow the gipsies when they leave the district.

EDUCATIONAL VISITS AND—

HE MYSTERIES OF A SIGNAL BOX being xplained to an interested party of schoolboys.

BOYS STUDYING ARCHITECTURE: one of the valuable cultural studies which enrich the child's environment.

A VISIT to the local electricity works, to see o practical application of the science lesson.

DYS FROM A RURAL SCHOOL at the local waterworks.

A PARTY of Boys and Girls on a visit to the London docks.

SCHOOL JOURNEYS

IN a recent report it was stated that in East Anglia there are a large number of children who have never seen a railway train. It is a commonplace that town children are often woefully ignorant of life in the countryside, and those in rural districts know little about town life.

The purpose of educational visits and school journeys is to bring children into contact with a wider environment. Educational visits to museums, docks, factories, etc., take place in school hours and are becoming a part of the normal school curriculum.

School journeys, however, are in a different category. These are organised, voluntarily, by teachers, who spend a proportion of their holidays in taking parties of children to the country, seaside, or abroad. The School Journey Association has made such progress that a hostel has been established in the Isle of Wight. The pictures of South African schoolboys and a party from a London School in Switzerland, illustrate another aspect of school journey activities.

A PARTY FROM A LONDON SCHOOL on a visit to Switzerland.

SCHOOLBOYS FROM SOUTH AFRICA interested in a pavement artist.

LDREN FROM A SENIOR SCHOOL studying geography on the Sugar Loaf, Abergavenny.

FAIRY COURT: the School Journey Associatio Hostel in the Isle of Wight.

A SELECTIVE CENTRAL SCHOOL

AGES 11 TO 15 PLUS

WE now come to a type of school which recruits its pupils, to a large extent, from those who, for some reason or another, have just failed to enter the Secondary or Junior Technical School. Administered as an Elementary School, so that the teachers, usually graduates, are not treated as secondary or technical teachers, it provides courses of study of a secondary or technical type, and links itself with the needs of commerce and industry. Many of the pupils remain till the age of sixteen. Though Classics are not taken, modern languages are taught, and the choice of a language is governed by local needs—Spanish, for example, being preferred in a township trading with South America. It is a curious anomaly that this type of school is not recognised as part of our provision for Higher Education.

A CLASS ENGAGED IN PRIVATE STUDY.

NO! THIS IS NOT A SINGING CLASS, but a class being taught correct French pronunciation.

A CLASS DEBATE, which broadens the children's interests and at the same time develops self-confidence and the ability to speak well.

POSTER-DESIGNING in the commercial art class.

A CHEMISTRY CLASS at work in the laboratory.

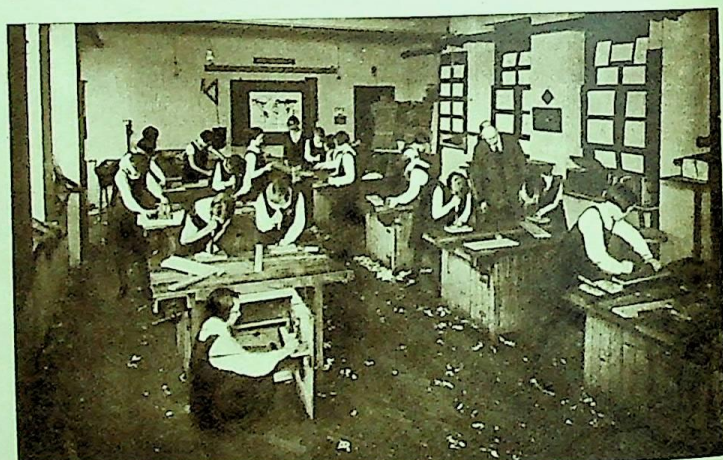
AT WORK IN A SELECTIVE CENTRAL SCHOOL

LEARNING TO TYPE evenly and quickly with the aid of the gramophone.

A NEEDLEWORK CLASS, with sewing machines in use.

A METALWORK CLASS.

A DRAMATIC PERFORMANCE.

A COOKERY CLASS at work in a well-equipped kitchen.

GIRLS IN THE WOODWORK ROOM—a useful accomplishment for the future housewife.

THE BOY SCOUT MOVEMENT is spreading rapidly in schools of all types: here we see members of a school troop practising signalling.

SECONDARY EDUCATION

DRAMATISATION is a recognised and valuable part of the English lesson.

LEARNING FRENCH with the aid of the linguaphone.

THE growth of secondary education during the last thirty years presents one of the most remarkable features, even in this century of rapid progress. With the advent of an advanced form of democracy, it was realised that such a stupendous experiment depended for its ultimate success upon the standard of education provided for its citizens. Although the great "public" and "private" schools had performed an indispensable function in the past, the new leaders in politics, industry and commerce could no longer be recruited exclusively from this type of school. All classes of society were demanding an equal chance to obtain the highest positions in any chosen vocation, and with the demand came into being a complete system of grant-aided secondary schools. The justification of the system is seen rather in the lives and bearing of the pupils than in the large number of examination successes and scholarships gained at the Universities from these schools.

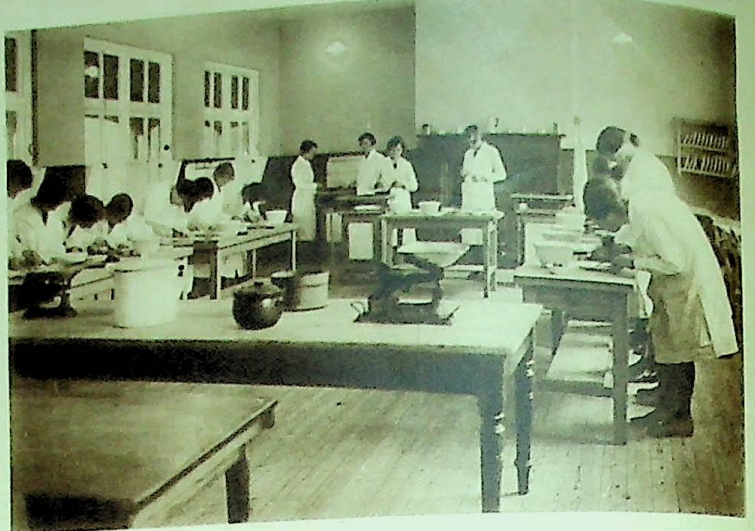
Naturally, at first, the traditions of the older schools formed the basis upon which the newer were built. The classics and the influence of the older Universities permeated the whole curriculum. The necessity for modifying this conception and bringing the State-aided schools more in line with modern needs was soon realised, however, but, very wisely, both administrators and teachers refused to follow the example of the United States of America by subverting secondary education to the supposed immediate needs of Industry or Commerce. In other words, it was firmly believed that it is the function of the schools to provide the type of education which will enable pupils to enter *any* profession or trade, equipped with a mind broadened by a curriculum of a catholic character, and with a full sense of the duties of citizenship. Specialisation, always the greatest danger at this stage of education, may produce effective automatons, but if Great Britain is to maintain her position in the political and economic councils of the world, something more than this is needed.

Therefore, while the curriculum, as the following pictures illustrate, has been considerably modernised, and facilities for such things as practical work introduced, those responsible for secondary education are convinced that the ultimate good of the country as a whole is best served by a judicious combination of subjects, both cultural and utilitarian.

A GEOGRAPHY ROOM.

STUDYING THE CLASSICS through Greek drama.

SOME OF THE VARIED ACTIVITIES OF THE

BOYS IN THE WOODWORK ROOM.

GIRLS IN THE COOKERY ROOM.

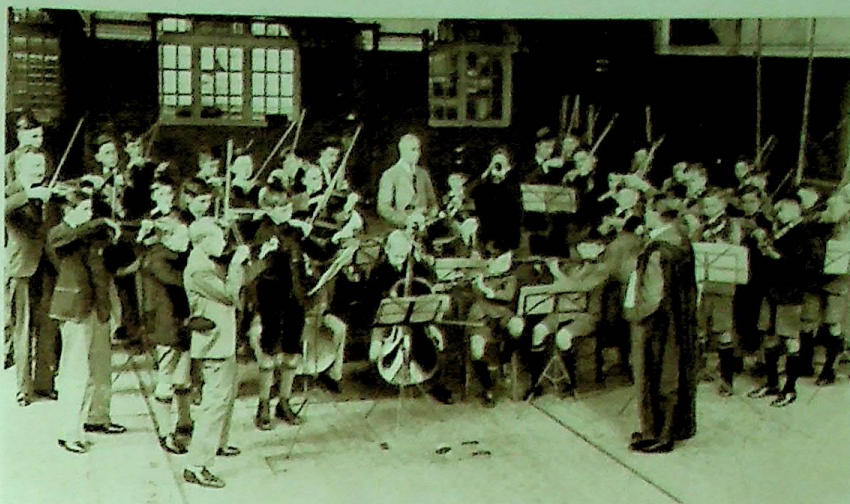
AT WORK IN THE CHEMISTRY LABORATORY.

PRACTICAL EXPERIMENTS IN ELECTRICITY.

A BIOLOGY CLASS AT WORK.

A PHYSICS LESSON IN PROGRESS.

SECONDARY SCHOOL CURRICULUM

A SINGING PRACTICE IN THE LIBRARY.

A FINE EXAMPLE OF A SCHOOL ORCHESTRA.

LEAGUE OF NATIONS JUNIOR BRANCHES are doing valuable work in the schools: here we see a mock trial which was presented at a Rally for the propagation of the aims of the League.

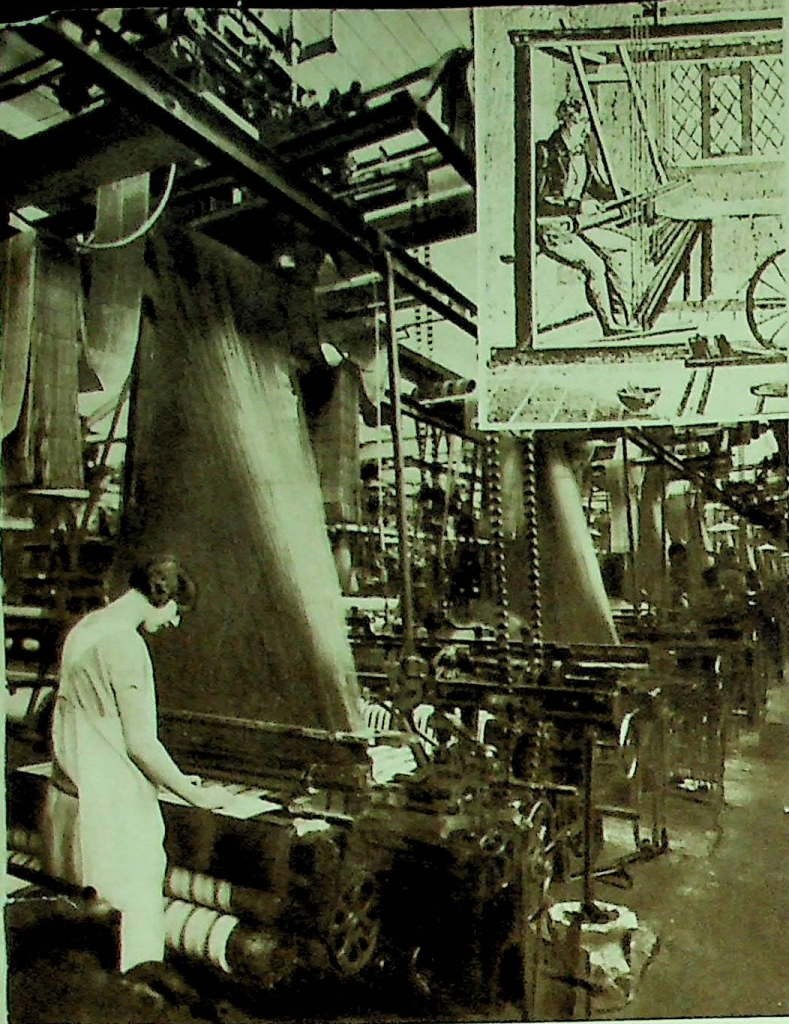
A CORNER OF A SCHOOL LIBRARY.

LEFT: An art class at work.

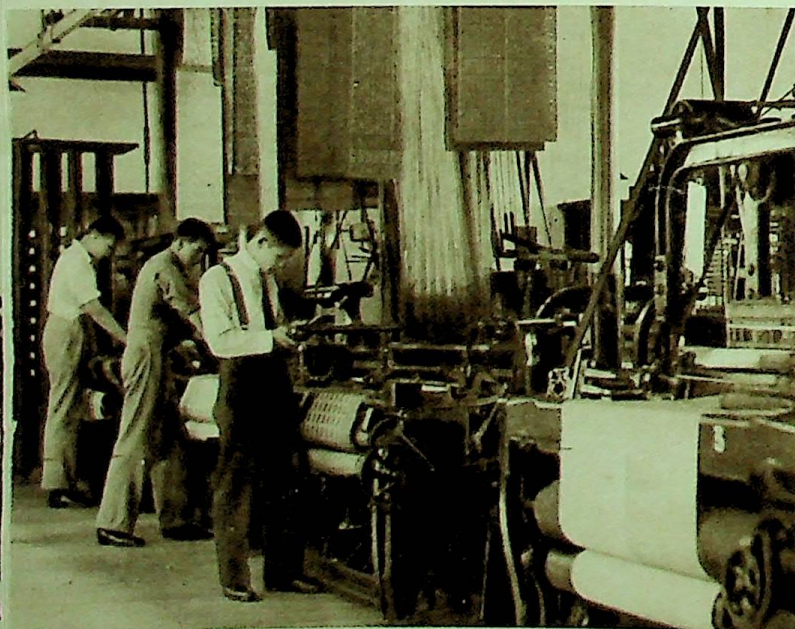
ABOVE: Girls drawing from still life.

TECHNICAL EDUCATION

HAVING traced our educational system through the Elementary and Secondary Schools, we now come to Technical Education, the importance of which to a modern, industrial and commercial country such as Great Britain cannot be over-emphasised. While it is true that cultural value rests ultimately on a material basis, social and industrial problems are interlocked. The aim of technical education includes, therefore, not only the development of our material resources, but also the provision of a liberal culture based on our common activities and aspirations. In a word, technical education adapts men to environment, but continually alters environment in their interest.

It would be impossible, for reasons of space, to show how technical education prepares for all trades, but on this page we are able to show, as an example, illustrations indicating something of the work done in textile trades. Note especially how industry itself has altered with the introduction of mechanical power, and the progress made by technical education to prepare students to take their place in the modern factory and workshop.

AT WORK AT A MODERN WEAVING LOOM: contrast this modern worker with the inset picture of an early weaver.

A CLOTH ANALYSIS ROOM.

A DYEING LABORATORY.

ABOVE: The final stage in the manufacture of cloth.

RIGHT: Girls in a trade school embroidering the finished product.

TRADE SCHOOLS AND COMMERCIAL EDUCATION

A BRANCH OF COMMERCIAL EDUCATION: girls learning typewriting.

CHEFS IN THE MAKING.

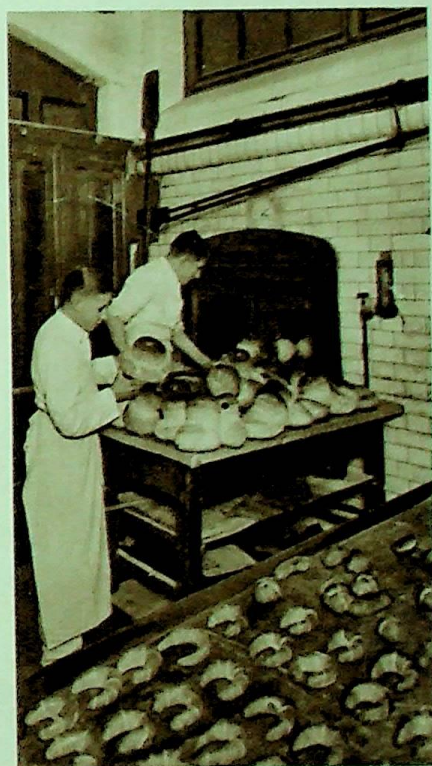
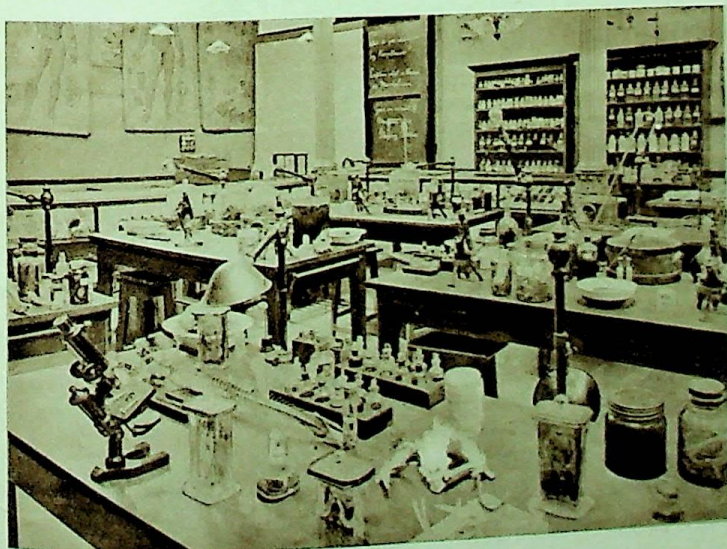
On this page an attempt is made to show three aspects of technical education, namely, trade schools, commercial education, and the place of science in industry and, therefore, its importance in technical schools.

Cookery and Baking become more and more callings which demand careful training, and the two illustrations give a little idea of the provision made in certain technical institutions for the training of boys in these trades. The picture at the foot of the page indicates the varied work of a girls' trade school.

Commercial education has not hitherto received the attention which has been bestowed on education for production work. Energies are now, however, being devoted to distributive work, and wide commercial courses are abundantly available.

A knowledge of Chemistry is now necessary in almost all modern industrial processes. In a technical institution, therefore, the chemistry laboratory is as important as the wood or metal workshop. It is only comparatively recently, however, that Biology has been recognised as an essential study. It is now realised, for example, that only through utilising the services of expert biologists can the wastage due to parasites, which, in the British Empire alone, account annually for the destruction of sufficient food for forty-five million people, be avoided.

SCIENCE IN INDUSTRY

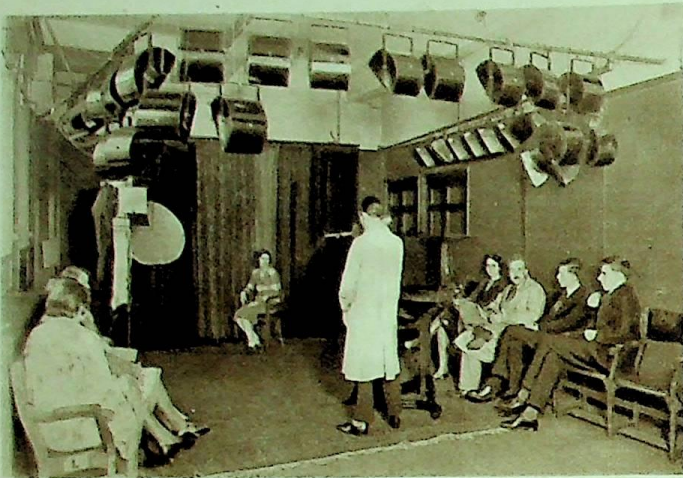
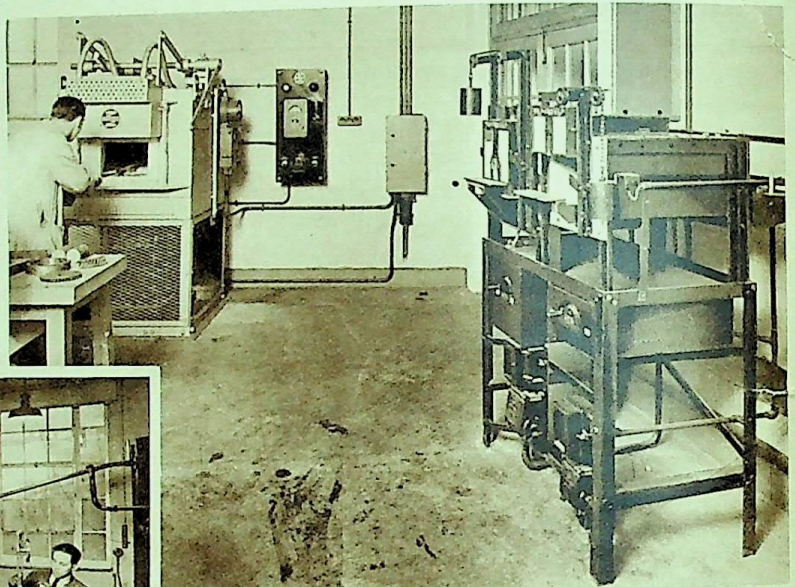
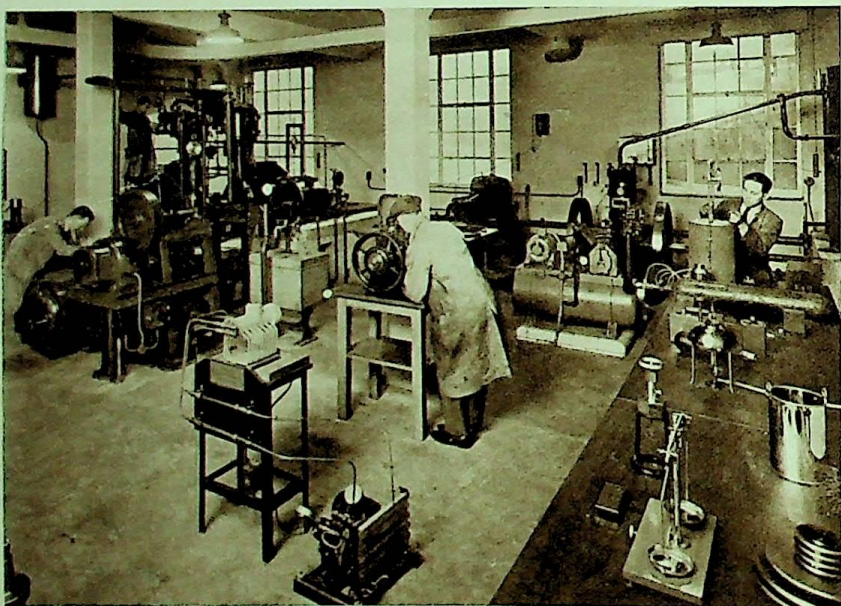
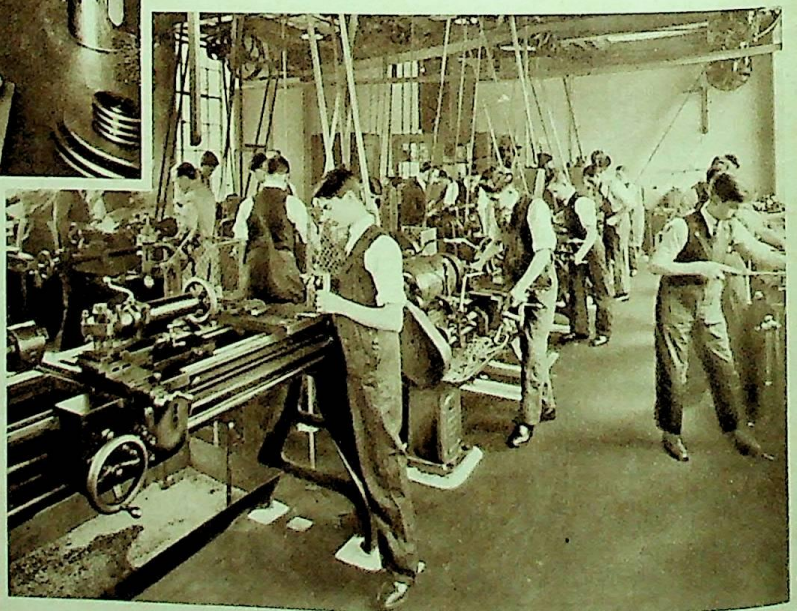
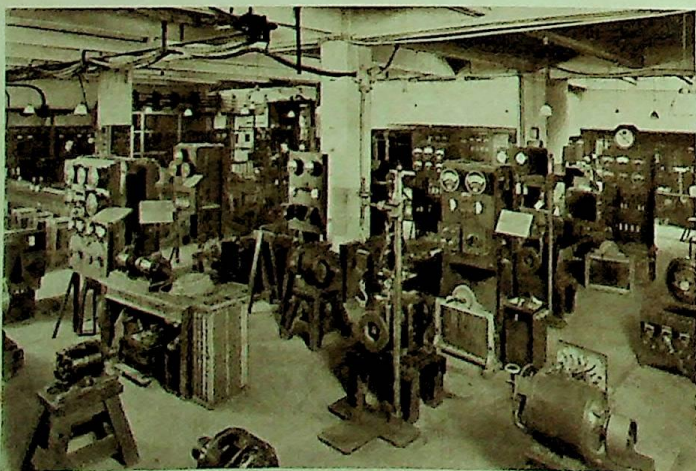
A CHEMISTRY LABORATORY.

LEARNING THE ART OF BAKERY.

A BIOLOGY LABORATORY.

Right: HAIRDRESSING AND BEAUTY CULTURE being taught at a girls' trade school.

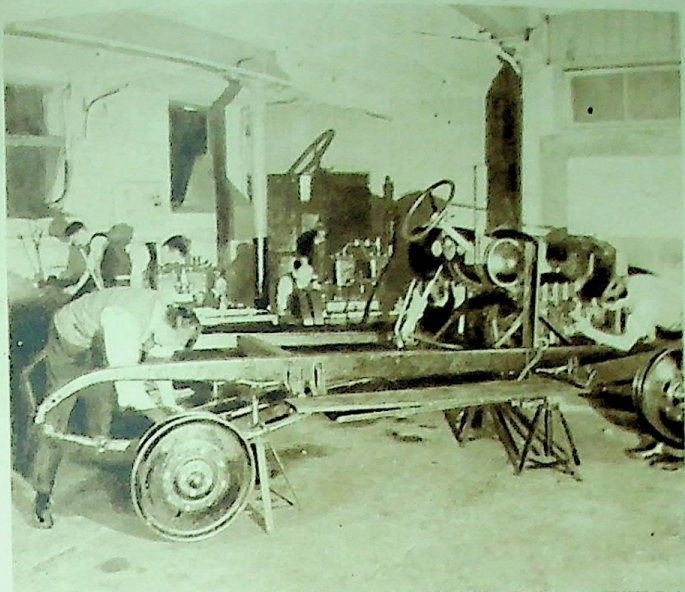
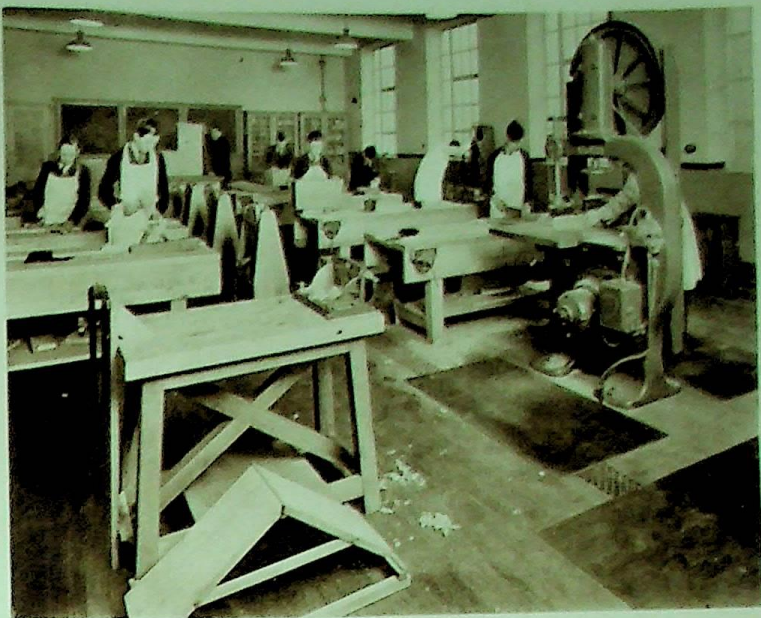
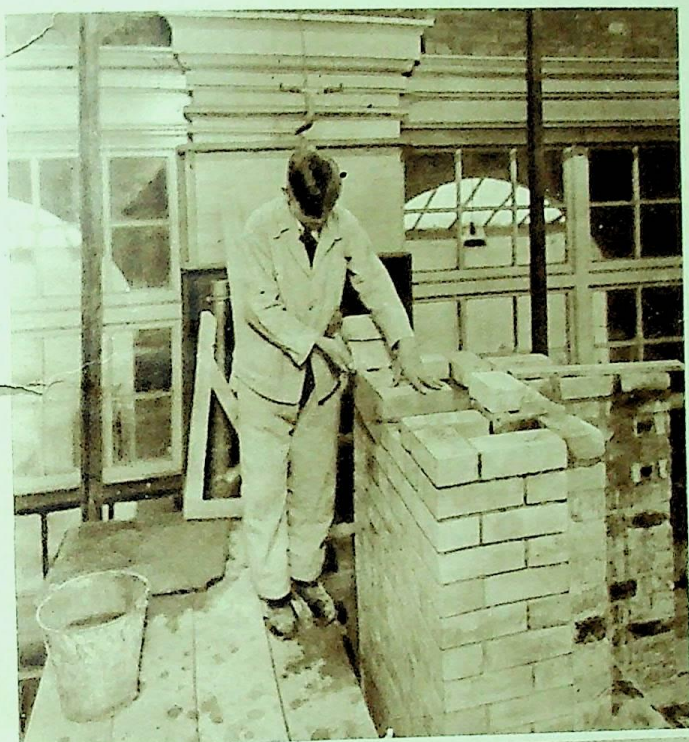
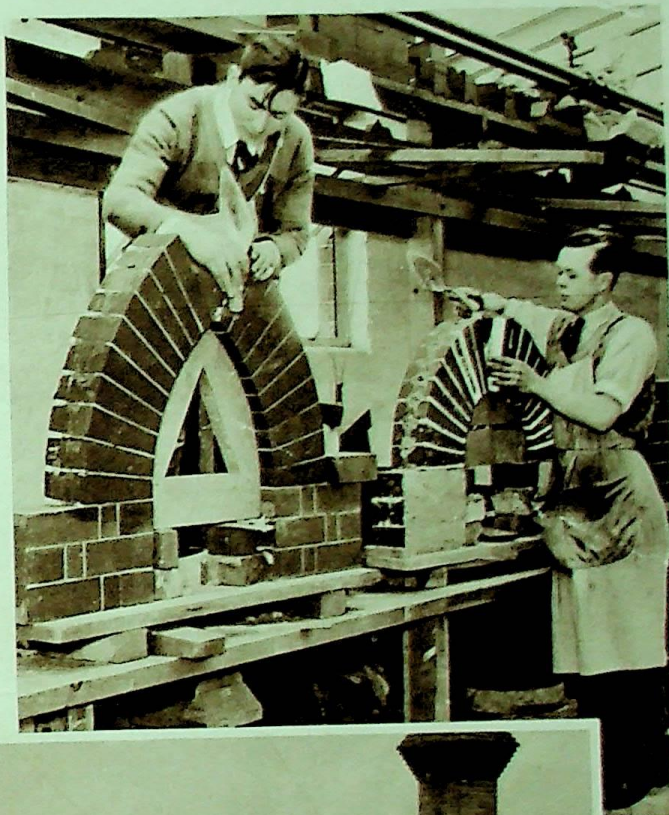
AT WORK IN THE

A PRINTING SCHOOL: At the centre table proofs are being read of the letterpress set up by students at the printing machines.

THESE two pages illustrate other activities associated with technical colleges or institutions. To-day, almost every town of any size makes some provision for technical education, and, apart from general courses, attempts to link up with local industry and commerce. There are, in addition, certain trades, such as building, printing, engineering, etc., which receive specialised treatment in separate departments or institutions. In these, students are taught all the stages in a given trade, and in the case of engineering, for example, facilities are provided for research work. The picture of a metallurgical laboratory is a good example of how modern discoveries affect the whole curriculum of a technical institution.

Photography is another excellent example of the way in which technical education is keeping abreast of modern needs. It is recognised that this is now a highly skilled art and that the most careful training is

LEARNING THE ART OF THE PHOTOGRAPHER.

A METALLURGICAL LABORATORY.

A HEAT ENGINE WORKSHOP.

Above: A PRACTICAL ENGINEERING ROOM.

Left: AN ELECTRICAL ENGINEERING LABORATORY.

TECHNICAL SCHOOL

A CLASS IN AUTOMOBILE ENGINEERING.

A WOODWORK SHOP.

ABOVE: Builders in training.

RIGHT: Training in seamanship at a nautical school.

required by those who desire to adopt it as a career. The picture of boys training for seamanship at a nautical school is interesting since it shows how scientific the calling of the sea has become. The Board of Trade now recognises a period spent in an approved technical institution as a part of apprenticeship to the sea.

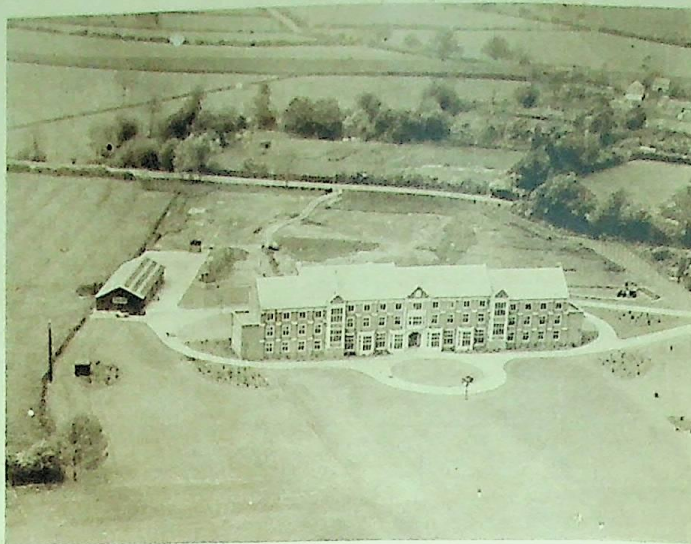
These pictures naturally represent only a few of the activities of a modern technical institute, but, even so, they serve to emphasise the importance of the work done, and the necessity of maintaining the present standards, and extending facilities where deficient, if Great Britain is to hold her own in the world of Industry and Commerce.

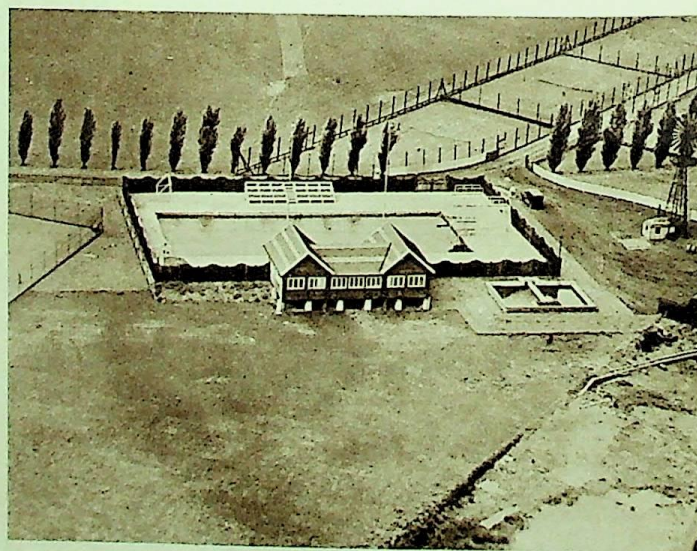
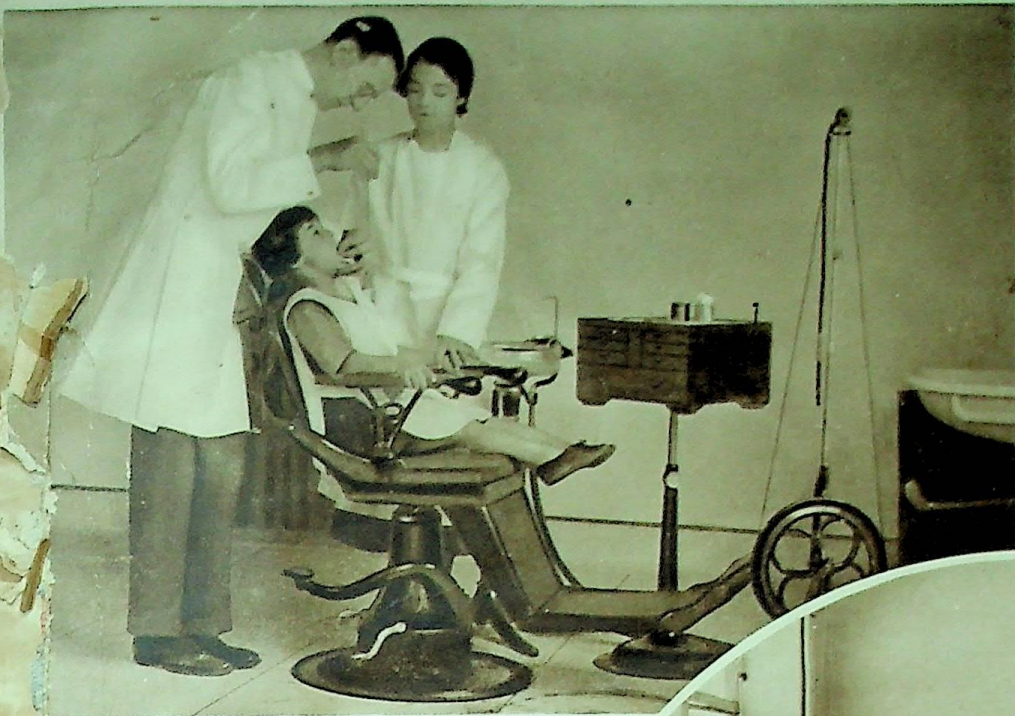
A TECHNICAL COLLEGE

A CORRIDOR IN A MODERN TECHNICAL INSTITUTE.

THE top left picture shows a corridor in one of the most modern technical colleges. The flooring is of rubber and the mysteries of the noisiest industries may be followed under conditions of academic calm.

No industrial nation can be successful if its workers are not physically fit. The technical institution, therefore, must provide for adequate physical training. The illustrations show a gymnasium and a swimming bath. The two which show the swimming bath are of particular interest since the bath was constructed entirely by the students.

It will be seen that an industrial civilisation demands twin tops to the educational system—the university and the technical college. Thus the modern technical college, in equipment and building, is a university of science, which includes schools of Engineering, Building, Chemistry, Commerce, Navigation, Domestic Work, etc. Thus industry may make its heaviest demands of technical education and the latter, in responding, humanises industry no less than makes it efficient.

A MODERN TECHNICAL COLLEGE.

A CORNER OF THE GYMNASIUM of a large technical college.

THIS SWIMMING BATH, attached to a technical college, was constructed entirely by the students. *Left:* the bath in course of construction; *right:* the completed bath.

THE SCHOOL DENTIST AT WORK.

THE HEALTH SERVICES

THE Health Services represent one of the most important aspects of our educational system, since they are concerned not only with the cure of disease, but, what is even more important, with the prevention of disease. Every child receives a periodic routine inspection, and, in 1932, 1,845,503 children were so examined. In addition, another 1,192,453 children received a special examination as the result of suspected ailments of one sort or another. It is a matter for considerable concern to note that such examinations have shown that 10·7 per 1,000 children are suffering from malnutrition, and another 10·7 per 1,000 from skin diseases. Further, 85·6 per 1,000 had defective vision, and 50·2 per 1,000 had enlarged tonsils or adenoids. The treatment of these children comes under the category of prevention of disease, and, by means of medical treatment, nursery schools, school meals, and physical education, the Ministry of Health and the teachers are gradually lessening the percentages of all preventible diseases and other ailments which lend themselves to special treatment. Writing in the Year Book of Education, 1932, Sir George Newman, Medical Officer of Health, paid tribute to the work of the teacher in this connection: "The health of the school, medical inspection and treatment of all kinds, physical training, the education of the abnormal child—all these have gained immeasurably by the services of the teacher. . . ."

In addition to the prevention of disease, the Health Services are responsible for Special Schools for the Blind, Deaf, Mentally Defective, Cripples, etc., and also open-air schools. In these Special Schools blind, deaf, and cripple children are taught useful trades which will ensure them some measure of self-respect in spite of their serious disabilities.

The work of the School Health Services is of such paramount importance to the nation that no efforts should be spared in maintaining its present efficiency, and extending those aspects of its work which at present are inadequate.

In circle: An operation for the removal of tonsils.

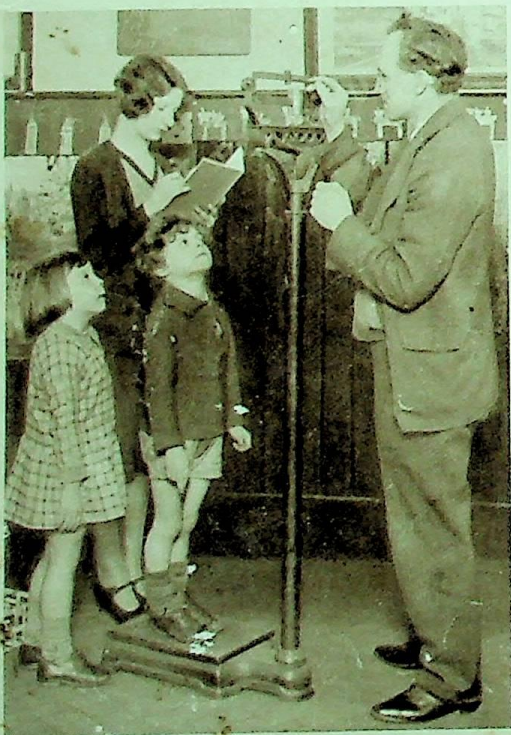
Right: Aural treatment.

SOME METHODS OF PREVENTING DISEASE

CHILDREN FROM OVERCROWDED DISTRICTS being bathed at the nursery school.

CHILDREN BEING FED at a necessitous feeding centre.

A CLASS BEING INSTRUCTED in measures for the prevention of influenza.

COD LIVER OIL increases resistance to disease: children receiving their daily dose from the school nurse.

THE CHILDREN ARE WEIGHED regularly to see that their weight is up to normal.

MORNING MILK in the infants' class.